IN THE UNITED STATES DISTRICT COURT
FOR THE SOUTHERN DISTRICT OF OHIO
WESTERN DIVISION

IN RE: OHIO EXECUTION PROTOCOL LITIGATION) CASE NO. 2:11-cv-1016

VOLUME IV

PRELIMINARY INJUNCTION HEARING
BEFORE THE **HONORABLE MICHAEL R. MERZ**
UNITED STATES MAGISTRATE JUDGE
FRIDAY, JANUARY 6, 2017; 9:00 A.M.
DAYTON, OH

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Randall Porter, Esq.
Gary Mohr
Stephen Gray

INDEX OF WITNESSES

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Proceedings recorded by mechanical stenography, transcript produced by computer.

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P-R-O-C-E-E-D-I-N-G-S 9:09 a.m.

THE COURT: We're back on the record in Case Number 2:11-cv-1016.

Plaintiffs may call their next witness.

MR. SWEENEY: Your Honor, we call Director Mohr.

GARY CLIFFORD MOHR, DEFENDANTS' WITNESS, SWORN

MR. MADDEN: Your Honor, the experts are still in the -- we have a separation of witnesses for this.

THE COURT: Sir, would you state your full name and spell your last name for the record.

THE WITNESS: Gary Clifford Mohr, M-O-H-R.

THE COURT: The Court takes judicial notice that you are currently employed as the Director of the Ohio Department of Rehabilitation and Corrections. Do I have that right?

THE WITNESS: That is correct.

THE COURT: Your witness, Ms. Barnhart.

CROSS-EXAMINATION

BY MS. BARNHART:

Q. Good morning, Director Mohr. We figured you had been examined by Allen enough, so you get me now.

Director Mohr, at your deposition, you stated that you didn't know enough about a BIS monitor to be able to say whether the department could use it during an execution. Do you remember that?

A. Yes.

Q. You've now been sitting through this long hearing, and you've heard a lot of testimony about BIS monitors; is that correct?

A. Yes.

Q. Now, are you able to say whether that's something the department could use during an execution?

A. I could say.

Q. You are able to say?

A. Yes.

Q. And what would your answer be?

A. At this time, I am not confident that it would add a level of sophistication to the consciousness check that we're using.

Q. Okay. That sounded like you didn't think you needed to use it?

A. That's correct.

Q. But could -- could the department use it? Is it something that's feasible for the department to use, in your opinion?

A. I'm not sure. We've heard the term "proprietary" --

Q. Um-hmm.

A. -- before. We have heard a number of things. So at this moment, I am not sure that we would have the ability to use it.

Q. You think the department wouldn't be able to purchase one?
A. I am not sure legally with the word "proprietary." I don't know whether we would be able to purchase one or not.
Q. If I were to represent to you that proprietary in this context refers to the sort of internal workings of the algorithm of the calculation, you know, when you do a Google search, you put in your words and the search comes out, but we don't know behind there what the calculation and algorithms that are being run in the computer scripts, right?
A. Correct.
Q. So if I were to represent to you that that's what the term "proprietary" means with regard to the BIS monitors, but that doesn't mean individuals or entities are prevented from purchasing one to use. Would that change your answer?
A. It may. It's part of the decision process that I would use.
Q. Um-hmm. What are the other parts?
A. What are the qualifications of the staff that would be required to read this. I've not been -- I'm not sure that that's been clarified in this process.
Q. I believe that there's been testimony from at least Dr. Antognini that someone with the training of a paramedic or an EMT would be capable of using a BIS monitor.

A. Well, since you brought up Dr. Antognini, I also notice --

Q. I'm sorry.

A. -- that he did not have confidence that it was additive, a BIS in his mind, and he used the other more traditional techniques that a paramedic would use.

Q. Okay. And I apologize. I misspoke. I meant Dr. Bergese there.

And again I think that what your answer reflects is whether you feel it would be useful. I am not trying to get to that. I am just trying to determine whether it's something that you believe the department could use.

A. We could use it.

Q. Okay. Thank you. I'd like to talk about the most recent iteration of the protocol, the October 7th, 2016, protocol.

Now, when did you decide to switch to the method that's in that protocol?

A. By "method," what do you mean?

Q. The three-drug method that uses midazolam as the first drug.

A. It became -- when it became apparent that our efforts, our extensive efforts to find thiopental sodium and pentobarbital were not going to be successful. At a point where we looked at other options and my responsibility under

Ohio law to carry out these executions, we were looking at other jurisdictions that were using three drugs. So at some point prior to that. It was not on a specific day. It was a journey in terms of the decision-making process.

Q. And what was the time frame for when that journey took place?

A. It was several months. And it became apparent -- when it became apparent to me that we were not likely to be successful in achieving one of those two drugs I just mentioned, then we became focused on a three-drug protocol.

Q. And when did it become apparent to you?

A. Months before we enacted it. I don't know the date. And I don't know the -- because I don't know the exact date that it became clear that we were not going to be successful. Those efforts in finding those single drugs were not fruitful.

Q. So have you abandoned the efforts to find the single drugs?

A. No.

Q. Okay. Would you say that -- I know you said you don't remember an exact date. Now, discovery in this case indicates that the department was purchasing midazolam as early as the beginning of July of last year. Does that help you pinpoint more specifically a date as to when it became apparent to you that you would need to use midazolam?

A. Oh, it -- I don't mean to be flippant, I really don't, but it would have been a few months before the order took place.

Q. Okay. So a few months before July?

A. Yes.

Q. And why didn't you decide to tell the Court or the plaintiffs or the public about that decision until October 3rd of 2015?

A. Because --

Q. I am sorry -- of 2016.

A. You know, I have based all of my interactions on our protocol change, based on former Director Ernie Moore's commitment to this Court that we would provide a protocol at least 30 days in advance. And I was -- quite frankly, I remain hopeful that we are going to find those single drugs at some point in time. That at some point in time, be it the federal government or whatever, is going to allow states to be able to do what they -- to obtain those.

So, you know, I was just committed to comply with the past practice of the agency and the commitment of the agency, which was that we would provide the protocol at least 30 days in advance.

And, quite frankly, just because the midazolam was ordered at the date that you suggested -- and I don't have recollection of that. I trust that you are accurate. The

protocol's a very complex piece. I have never worked under a three-drug protocol. I have never been involved in that. So just obtaining the drugs does not mean that we finalized the process.

And I think the protocol being finalized needed to be done before there was notification.

Q. I see. So the protocol wasn't finalized, but as you've just testified, the decision to switch to the three-drug protocol was several months before the drugs were ordered in July?

A. The decision to explore the three drugs certainly was a few months in advance of that.

Q. Um-hmm.

A. I am not saying a decision was made. A decision would be made today, if I could get the single drug, to use a single drug today.

Q. Um-hmm. Do you think that letting the Court and the plaintiffs, at a minimum, know that you were exploring using midazolam back in July or several months before that would have allowed this process to take place in a more deliberative manner?

MR. MADDEN: Objection. There was no discovery obligations with --

MS. BARNHART: That's not what I am asking.

MR. MADDEN: The case was stayed.

THE COURT: Right. We understand the case was stayed. And the question -- the witness may answer the question.

THE WITNESS: All right, listen. I'm a correctional professional, 42-1/2 years. And the notification of the other side, I depend on a number of people strategically to allow that to happen. And so I believe that what I did was appropriate.

BY MS. BARNHART:

Q. Okay. As a strategic decision in this case?

A. Yes.

Q. Now, who was involved in the decision to amend the protocol, to switch to the three drug-midazolam method?

A. There were a number of people. Ultimately, I signed the policy and I made the decision.

Q. Um-hmm.

A. Chief counsel, the Attorney General's Office through those discussions --

Q. And I don't want to ask about any privileged attorney-client information.

A. I hope they'll object if you do.

Q. I'm sure.

A. I'm waiting for somebody to get up. Your Honor, I haven't seen much action over there yet. But anyway --

Q. Just that you consulted with them. Not the content of

the discussions.

A. And I know I was not intimately involved in the -- I wasn't involved in the process of securing the drugs.

Q. Um-hmm.

A. Or those processes. I know that there was an assemblage of the execution team members as we wrote the protocol. The governor's office was advised and involved in -- involved in discussions as to the approach. And in terms of the other external stakeholders, I am not sure who else was used by our chief legal counsel in putting that together.

Q. And you said you are not involved in securing the drugs. That's primarily your chief counsel, Steve Gray, and Richard Theodore that secure the drugs, right?

A. I asked our chief counsel to direct that, and he directs that with the resources that he -- that he deems necessary.

Q. And so is your testimony that you don't know if Richard Theodore is involved?

A. No, Richard Theodore is, but I'm suggesting that there may be others that I am not aware of.

Q. Okay. So among that group that you listed of counsel, governor's office, and team members, are any -- which among those, if any, have medical or scientific expertise into -- knowledge about midazolam and its use in a three-drug

protocol?

A. Of the people that I mentioned, I'm not aware of any of those having medical credentials. But I am also not aware of others that they sought input from.

Q. So in making the decision to approve the protocol, you didn't confirm or determine what sort of medical or scientific advice was being relied upon?

A. I met extensively with the group that was -- was putting this together multiple times and in person. I -- at this moment, I do not know of any names of physicians or -- or whomever. And as I understand, it's very difficult with physicians, given their licensure, to be part of a process that would support an execution.

So I'm not aware of other folks that --

Q. You are not aware of any experts who gave advice about this protocol or who were consulted about the protocol, correct?

A. Correct.

Q. And so as you sit here today, you are not able to say anybody, internal, external, that anybody provided medical or scientific advice about this new protocol?

MR. MADDEN: Objection, Your Honor. He's already answered that he has no knowledge.

THE COURT: It's a good summary question. I'll allow it.

THE WITNESS: Well, as we've talked, the medical team obviously has medical experience and training.

BY MS. BARNHART:

Q. Um-hmm.

A. And as we've heard in this courtroom, one of those individuals has 35 years of experience of administering to people in crisis. So I would -- I'm not going to discount that they don't have medical training.

Q. But if -- if those team members with medical training testified that they did not provide that type of input into amending the protocol, would you be in a position to disagree with that?

A. I would. I met with them as we talked about rewriting protocol 01-COM-11. I was involved in meetings with them.

Q. And in those meetings, you have personal knowledge that they were providing their medical or scientific expertise in advising about amending the protocol?

A. I clearly know that their experience was used, and I don't know --

Q. How do you know that?

A. Because I was with them.

Q. So you observed their experience being used?

MR. MADDEN: Objection, Your Honor.

THE COURT: Sustained.

MR. MADDEN: It's not what he testified.

BY MS. BARNHART:

Q. I don't mean to put words in your mouth. I am just trying to determine the basis for your statement that their medical and scientific expertise was given as input in changing the protocol.

A. I would -- I would, I guess, say to you in this way.

Q. Um-hmm.

A. I'm responding to you based on my experience as a director in this period, so I would assume that you would take my responses as utilizing the experience that I have.

I took their input in terms of our changing 01-COM-11 as their using their experience. So they didn't state that they had used their experience but --

Q. That's fair.

A. -- I assumed, much like we are doing here today.

Q. Okay. And what was that input then? That you took as being derived from their background and experience.

A. That the protocol that was proposed was not as desirable as having the single-drug protocol, which I think is a unanimous consensus of ours.

Q. Um-hmm.

A. But the protocol that was in -- that was proposed and is currently in place in our current protocol would work and would work effectively.

Q. And by work, what do you mean?

A. Be successful at creating a humane execution.

Q. It would prevent the inmate from feeling pain?

A. That, yes.

Q. Okay. Now, what input, if any, did Richard Theodore provide?

A. He was engaged in the process. He discussed, as he does in the annual training, the general impact and the -- the impact of the drugs utilized.

Q. Okay. And what -- what did he say the general impact of the drugs utilized was?

A. Midazolam --

MR. MADDEN: Objection, Your Honor. Hearsay. She's asking what Rich Theodore said.

THE COURT: Not for the truth of what Mr. Theodore said, but for what the director heard when he was deciding the question, shall this protocol be adopted.

Objection overruled.

MS. BARNHART: In addition, Your Honor, Mr. Theodore is a defendant in this case. It's a statement of the party opponent.

MR. MADDEN: It's not an opponent. It's the same party.

THE COURT: The objection is overruled. The hearsay objection is overruled.

THE WITNESS: I'm ready to answer the question

that Your Honor -- okay, okay. Just checking.

Walk through the general purpose of the three drugs, midazolam being a sedative --

BY MS. BARNHART:

Q. Um-hmm.

A. -- the rocuronium or pancuronium bromides --

Q. Paralytics.

A. The paralytics, thank you -- to reduce and eliminate, stop the muscle movement. And the potassium chloride, as I think he used the word "electrolyte," not that I am competent to use that word, to interact and stop the heart.

Q. Now, I didn't hear you mention among that description the painful effects of drugs two and three that's been talked about in the hearing. Was that input provided?

A. It was indicated that drugs two and three both provide some pain with them, and the pain is a bit different, and I'm not sure I'm competent to describe what that is, other than the burning with the paralytic, et cetera. And that was why the necessity for the first drug was put in place, was to -- to render a person in a condition that they would not experience the pain.

Q. And you said it was indicated that was by Mr. Theodore?

A. Mr. Theodore provided that input as well. And it was a general discussion among folks, and I can't remember, but he was part of that discussion, as was I.

Q. So the group generally acknowledged the fact that these second and third drugs are painful if not -- if the first drug isn't working properly, to prevent the inmate from feeling pain?

A. I didn't see any objections to the group when those discussions were made.

Q. Okay. Now, is it your understanding that Mr. Theodore trains the team members on this -- on that information about the pain of the drugs?

A. Yes.

Q. It is. Would it surprise you if Mr. Theodore testified that he did not train about that? He trains only about the therapeutic uses of the drugs?

A. It would.

Q. And would it bother you as -- is it something that is relevant to the protocol and to the training of the team members?

A. As you are aware, I do attend the annual training of that. And, in fact, this year attended both the cites at Chillicothe and at Lucasville, two different sites. And the -- my recollection of what he trained started very extensively in a very lengthy presentation with a comment of the black box and the danger of the drugs, walking through their impact or their influence on the body as I attempted poorly to describe.

Q. I just want to clarify, you were talking about drugs two and three here, right?

A. No, I'm not. I'm talking about starting with midazolam --

Q. Okay.

A. -- and its influence, and then going to the bromides and discussion of all three of the bromides being similar but, quite frankly, the different concentration with the rocuronium chloride and then finally the potassium, and walk through, quite frankly, at great length that information. And unless I was imagining something, I heard a description of the impact and the reason that we were using midazolam at the beginning was to render a person unconscious. And that reason was to avoid the pain of the second and third drugs.

Q. Okay. So if team members following this training were not aware of the pain of the second and third drugs, would it be fair to say that either they weren't trained on it, or that that training was ineffective?

A. I can't -- I don't know the reason. I will just tell you as I said before, it's surprising having sat through two trainings this year.

Q. It's a problem.

MR. MADDEN: Objection.

BY MS. BARNHART:

Q. Is it a problem?

THE COURT: That question is appropriate.

No. Upon mature and considered and deliberate reflection, the objection is overruled.

MS. BARNHART: Sustained or overruled? The first objection?

MR. MADDEN: She's allowed to ask that question?

THE COURT: No, no. Upon further reflection, the objection is sustained.

MR. MADDEN: Long week, Judge.

THE COURT: It isn't over yet.

THE WITNESS: What was the question?

BY MS. BARNHART:

Q. Okay. What's your assessment of that state of affairs then? So I am not putting words in your mouth.

MR. MADDEN: Objection, Your Honor. She's asking for speculation about what other people are thinking, the team members.

MS. BARNHART: I'm asking --

THE COURT: No. That objection's overruled. She's asking, as I understand it, whether it's a problem from the director's perspective, what the state of mind of the team members is.

MS. BARNHART: Correct, Your Honor.

BY MS. BARNHART:

Q. That's what I'd like to know.

A. If that's a specific question, I do have real concern about the state of mind of all of us involved in the execution process.

MS. BARNHART: Okay. If I could get the slide that would relate to these questions, which is a little out of order. If that's not possible, I can return to it later.

We'll just work within the AV that we've already prepared.

BY MS. BARNHART:

Q. All right. Now, Director Mohr, just so the record reflects this, you've been here every day for this hearing, and were you listening carefully to all the testimony here?

A. Absolutely.

Q. So you heard Mr. Sweeney question Team Member 21 about what will happen if an inmate -- and Mr. Sweeney used the example of his client, Mr. Phillips -- is given a second dose of midazolam -- so he gets the first, two syringes of 500, and then is given a second dose -- and then he still fails the second consciousness check. Do you remember that line of questioning?

A. I do remember that line of questioning.

Q. And do you remember what Team Member 21 said would happen in that event?

A. I don't want to -- I don't want to guess.

Q. If I represented to you that he said that he would --

there would be a consultation at that point, does that sound accurate to you?

A. Yes.

Q. And you agree that that's what would happen as well, correct?

A. Yes.

Q. Now, during that consultation, you are going to rely on the input from your team members, the ones with the medical expertise, to help determine what to do?

A. Yes.

Q. And those team members, though, said that they are going to turn to you to tell them what to do, correct?

MR. MADDEN: Objection, Your Honor. This mischaracterizes their testimony. Their testimony is they were going to get together and deliberate, not that they were going to have some kind of confusion among the two.

MS. BARNHART: I --

THE COURT: Understood. The objection is overruled.

THE WITNESS: I want to be -- I really do want to be responsive, but I think it was a yes-or-no question, but I am not sure now.

THE COURT: Let me try.

THE WITNESS: Okay.

THE COURT: At that point in time, if that

happens, two doses totalling 1,000 milligrams of midazolam and the consciousness check does not reveal unconsciousness, the testimony of Team Member 21, I believe, was that there would be a consultation and who would be in that consultation. And as I understand it, the question is, after that consultation, the decision about what to do next, is it yours or is it, like, everybody's consulting and, you know, six in favor, five against, and, you know, one abstention, or is it your decision?

THE WITNESS: Your Honor, I'd be glad to answer that. That is my -- that is my decision.

BY MS. BARNHART:

Q. And what I believe I heard Team Member 21 say is that he was unable to predict what the decision would be because it's not his decision. There would be a consultation, and he's looking to you to say what to do?

MR. MADDEN: Objection. I don't believe --

BY MS. BARNHART:

Q. You nodded.

MR. MADDEN: -- that was his testimony.

THE COURT: I think it's close enough.

THE WITNESS: Give me a question, and I'll respond. That was a statement, I thought.

BY MS. BARNHART:

Q. Okay. You agree -- you agree with my characterization

of his testimony?

A. I agree that I would make a decision at that discussion, at that deliberation, based on a number of things.

Q. I'm not trying to obfuscate this here.

A. I want to respond, but I just want to respond to a question.

Q. I want you to understand our concerns. We hear a bunch of people saying that other people are going to make decisions, that they can't say, in being posed a hypothetical with specific components, your team members are not able to say what they would suggest or what would happen.

MR. MADDEN: Objection, Your Honor.

THE COURT: Sustained. Number 21 wasn't asked what he would suggest, he was asked what would happen next. That at least is my recollection of the testimony. And the witness has answered plainly that it would be his decision to make what would happen next.

MS. BARNHART: All right, Your Honor. Just because I have a different recollection of the testimony, if I could pose it as a hypothetical.

THE COURT: Please.

BY MS. BARNHART:

Q. If it is -- if it is in fact the case that your team

members say that they don't know what they would suggest at that point, and it's your testimony that you are going to rely on those team members' input --

THE COURT: Finish your question.

MS. BARNHART: Thank you.

BY MS. BARNHART:

Q. -- I hope you can appreciate our dilemma, which is, we don't understand how a decision's going to be made. And I'd like to give you an opportunity to allay our concern.

A. Thank you.

MR. MADDEN: Objection. That's not a hypothetical. That was her version of the testimony.

MS. BARNHART: Posed hypothetically.

THE COURT: I'll allow it. Go ahead.

THE WITNESS: Thank you. I mean, I think -- forgetting the legal stuff here, I want to respond to that question.

THE COURT: Please.

THE WITNESS: So there is a number of -- Your Honor, there is a number of factors that I would be asking the medical team. And let me just say, I have been here all four days, and it will be five days, and I have gained a tremendous amount of insight in terms to enhancements, not to the protocol but to supporting the protocol. One of which is, as we do the consciousness checks, there will be

two drug administrators in the room, in the death house -- one, the drug administrator, and, two, the team leader -- so that there is further corroboration of the consciousness checks.

As they come out and collaborate and I'm involved, I am going to be asking them this: So what is the purposeful movement? Is it -- is the person clearly conscious and cognitive and verbal and clearly aware? And if that's the case, then my question would be, do you think that an additional 500 milligrams of midazolam would, in fact, render the person unconscious? In fact, I would ask are you confident that that would happen.

If I receive the answer, no, I am not confident, or if I am not convinced that they are confident, I am going to get on the phone -- the governor's on the phone. I would talk to the governor. I said, "Governor, I am not confident that we, in fact, can achieve a successful execution. I want to reverse the effects of this. And I'm asking" -- and this is a legal question -- "I'm asking for an intent to reprieve."

If that happens, it won't be the medical team. It will be a response of the institution medical team, this is what we are looking at doing, with the -- with the reactive drug, the reversal drug to, in fact, do that.

Now, if in fact there is 100 milligrams that's been

administered and in this discussion the medical team says I'm not sure if he's conscious or not. The drugs have had a significant effect. I don't know that he is or not, I might order -- and I am going to have an additional 500 milligrams available in the room so there is not an additional delay, because I understand the fast-acting effect of midazolam -- and I might order a third round of dose, which would be equivalent to 1,500 milligrams of midazolam. It is dependent on that discussion. That's why that discussion is very important.

And we've spent now what? Since 2012 discussing the incident command system and the fact that I am director. The fact of whether I like it or not, I am the director. I will make the decisions. I'll make informed decisions and, consistent with the incident command system, I am going to use an informed, collaborative process to make the best decision. And under those circumstances, that's how I would react.

BY MS. BARNHART:

Q. Thank you for sharing those --

A. Thanks for asking the question.

Q. -- additional details. So to make sure that I'm clear on what you have said -- please correct me if I state anything inaccurately -- you are going to, following the consciousness checks, rely on your team. And if their --

first of all, if they say he still is conscious, you are going to deliver a second 500 dose of midazolam?

A. I didn't say that.

THE COURT: He said third.

THE WITNESS: I did not say that.

BY MS. BARNHART:

Q. Okay. Go ahead.

A. There was never a question about after the first dose. It's always after the second.

Q. Okay, okay, fine. So after the second when he already has 1,000 in, if they -- first of all, if they say he is still conscious, you are going to have prepared and ready to go a third 500-milligram dose, to bring the total to 1,500 milligrams?

A. That's not what I said.

Q. Okay.

A. I said I would have those drugs -- I am not going to have the drugs prepared and in a syringe.

Q. Okay.

A. The drugs will be available in the equipment room.

Q. Okay. And how long do you estimate it will take, if you decide to use them, to get the drugs from the equipment room and administered?

A. The equipment room is where the drugs are administered.

Q. Okay.

A. So it is in the exact location where the administration would take place.

Q. So the step would just be filling the syringe and then inserting -- administering the syringe?

A. That is correct.

Q. And you estimate that will take how long?

A. Let me ask the question: Are you involving the conversation/deliberation, or is it exclusively the syringe?

THE COURT: I understood the question to be from the time you say another dose to the time that third dose is administered, do you have an estimate of the amount of time that would take?

THE WITNESS: It would -- it would take a minute or two to get into the -- into the lines.

BY MS. BARNHART:

Q. So now I believe we have a clear answer if your team says that he is still conscious.

Now, you also talked about if they are not confident, if they are unsure whether he is or isn't conscious. And at that point, did you say one option would be to deliver that third dose of 500?

A. Yes.

Q. Okay. And did you also say that another option would be to call the governor and call off the execution by administering the reversal agent?

A. That's close to what I said. The governor, first of all, is on the line. So I don't have to call the governor.

And, second of all, I would -- I don't know that I just have the ability to call it off. I think there would need to be a commitment on the part of the governor that there would be a reprieve. I think -- legally, I think that is what is required.

So I would add those two parts to get to an affirmative response to your question.

Q. Okay. So until the governor gives you that permission, you don't have the power to tell your team to administer the reversal agent?

A. That's my understanding, and that's part of why we will be using this as part of contingency training --

Q. Um-hmm.

A. -- that will, in fact, include the governor's office in those discussions, to make sure. And, in fact, we have had discussions regarding this already, about the potential of walking through that. So we are in those discussions right now.

Q. So we will see that reflected in the training logs that are produced going forward in discovery in this case before Phillips' execution?

A. Not only will you see that in the training logs, you will see that in the 204s --

Q. Um-hmm.

A. -- from the medical team. So it will be described to them, yes.

Q. Okay. And so just to be clear, you -- the department already has, or has plans, to order the reversal agent?

A. We're exploring that right now.

Q. So you haven't decided if you are going to order it or --

A. My intent is to order it.

Q. Okay.

A. We do not have it in our possession. I want to be clear about that.

Q. Okay. I appreciate that. And when we are talking about the reversal agent, we are talking about flumazenil?

A. That's the only one I am familiar with.

Q. Okay. Now, is there a possibility that you would consider speaking with the governor, asking for permission for reprieve to administer the reversal agent earlier, after either the first 500-milligram dose or the second 500-milligram dose?

A. It is possible, yes.

Q. Okay. Primarily thinking of it after, if you need to do this third dose and things still aren't working?

A. It is to achieve our incident objective of a humane execution. If -- if we believe during this process that an

event takes place -- that's why collaboration's important -- that would prevent us from having confidence in completing a humane execution for whatever reason, that's reason for me to have that discussion with the governor.

Q. And what I'd like to know is what would qualify for one of those events is if you saw the exact same things that happened in the McGuire execution?

A. No.

Q. If -- what would qualify for that event would be if the inmate speaks?

A. My previous discussion has been that, one, it's going to be a collaborative piece.

Q. Um-hmm.

A. So I am going to rely on the consciousness checks that are being performed by people who do those regularly. And they will evaluate those things. I am there to observe what's happening as well, and ask questions about what I'm seeing to get their feedback.

So -- so I didn't answer your question. I do apologize for that. This one's on me, I think.

Q. Well, I was asking if an inmate spoke -- and maybe to save some time, because you keep going back to the consultation --

A. Yes.

Q. -- perhaps it would be fair to say that there is no red

line that could be -- that you could say in advance that would be crossed where it doesn't matter what your team is telling you, that you yourself are not willing to say that I won't go forward?

A. If I am -- if I am looking at an inmate who is conversing, I mean conversing with someone in the room --

Q. Um-hmm.

A. -- after those doses of midazolam, I'm not going to go forward. I'm not -- I'm going to recommend that it not go forward.

Q. And by those doses, is it 1,500, 1,000, 500?

A. After 1,000, if I see that kind of cognitive verbal mechanical behavior, I'm going to recommend to the governor that we don't. Because at that point as the incident commander, I am not going to have confidence --

Q. Um-hmm.

A. -- that we are going to be able to complete a successful, humane execution.

Q. Is there anything else -- now, when you say speaking, does it this have to be -- can it be vocalization, such as moan?

THE COURT: He said conversation.

MS. BARNHART: Yes, so --

THE COURT: You can break it down.

BY MS. BARNHART:

Q. Besides conversations, which I interpret to be words in English, do you consider any other vocalizations to qualify?

A. I think I used --

MR. MADDEN: Objection. Vague.

THE COURT: I think it would be helpful to me -- I don't know whether it would help either you or Director Mohr, it would be helpful to me to know what examples, if any, you are thinking about.

MS. BARNHART: Could I ask the director --

BY MS. BARNHART:

Q. What does that term mean to you, "vocalizations"?

A. Noises.

Q. So groans or moans?

A. That would be a noise.

Q. Are there any other noises that you have in mind?

A. Just -- and I think Your Honor asked a question. He is trying to get some context behind this. I consider a noise, snoring or those kind of things, significantly different than the cognitive process that would need to go on in a conversation. I think those are hugely different audible sounds.

THE COURT: I am remembering that there is some testimony that Mr. McGuire said "I love you," or mouthed "I love you." I am not saying that that happened; I am saying there is testimony that says that happened, which is

significantly different from snorting, snoring, gasping, or groaning. Can you respond to that possibility?

THE WITNESS: Certainly, Your Honor. And McGuire did say that as the drugs were being placed in his body, not after a dose, a full dose of drugs. And not -- certainly would not have been after 1,000 milligrams had been placed in his body and after consciousness checks.

If that had happened, and if he had looked up and said "I love you" after 1,000 milligrams of midazolam, I would consider that a cognitive communication that I would consider not moving forward.

BY MS. BARNHART:

Q. At your deposition, you said you had not reviewed accounts of other midazolam executions in other states. Am I correct about that?

A. Yes.

Q. At your deposition, you were presented information about those other executions, correct?

A. Yes.

Q. And during this hearing, you heard from Dr. Bergese about events at the other -- at those other executions that he used in forming his opinion, correct?

A. Yes.

Q. And you have also heard other testimony from other witnesses in this hearing to those other executions,

correct?

A. Yes.

Q. And then have you also read the plaintiffs' expert reports from Dr. Bergese and Dr. Stevens as you pledged to do that in your deposition, correct?

A. Let me just say this: I have never not complied with Allen's request. I not only read those, I read a total of five reports, spending a whole day on the five reports that I read, and took notes on them, Allen, so I did follow a close loop on your request.

MR. BOHNERT: Your Honor, could I make a request for judicial notice that he will do whatever it is that I request.

THE WITNESS: I thought we were doing that the way it's been going.

MS. BARNHART: That's now incorporated in the policy.

MR. MADDEN: Objection.

THE COURT: Too much levity. I'm responsible.

THE WITNESS: I'm sorry, Your Honor.

THE COURT: No, I'm responsible for encouraging it.

BY MS. BARNHART:

Q. Both from those reports and from what you saw presented by the experts at this hearing, both our experts and your

expert, Dr. Antognini, said that there is a ceiling effect to midazolam, correct?

MR. MADDEN: Objection. Dr. Antognini didn't -- the suggestion that Dr. Antognini and their experts agree that there is a ceiling effect, where that ceiling effect is, is not accurate.

THE COURT: That's true. So rephrase the question.

BY MS. BARNHART:

Q. Dr. Antognini testified that there is a ceiling effect to midazolam as to the receptor sites and the EEG. Did you hear that?

A. Yes.

Q. Having heard that from your expert and also from our experts, do you believe there is a ceiling effect to midazolam?

A. I think there is.

Q. And do you believe that that ceiling effect is below 500 milligrams?

MR. MADDEN: Objection.

THE WITNESS: I don't know.

MR. MADDEN: That was not the testimony.

THE COURT: It's answered anyway.

THE WITNESS: I'm sorry.

THE COURT: No, that's okay.

BY MS. BARNHART:

Q. Do you believe that the ceiling effect will prevent midazolam from causing an inmate to be in a state of general anesthesia?

A. I think it could.

Q. Um-hmm, you think it could. Thank you.

Because you believe that, what would be the utility of giving up to 1500 milligrams of midazolam to an inmate?

MR. MADDEN: Objection, Your Honor. She is asking him to render an expert opinion.

THE COURT: Sustained.

MS. BARNHART: I am not asking for an expert opinion; I'm asking for his opinion. He's testified that he believes that after this hearing and the testimony in the reports, that the department is going to have in the equipment room a third dose of 500 milligrams of midazolam, that would get up to 1,500 milligrams of midazolam.

I'm asking why he is doing that in light of the information that he's heard and believes about the ceiling effect.

THE COURT: The witness has testified that he believes there is a ceiling effect. There is conflicted testimony about what might -- what the dosage for that might be, and so I stand by my ruling that the form of the question is improper.

MS. BARNHART: Your Honor, the witness also testified he thought that it could prevent an inmate from reaching a state of general anesthesia.

THE COURT: He did.

MS. BARNHART: So in light of that position, I'd like to ask him what he thought -- what he thinks the utility of having the third dose is.

THE COURT: And I'm not going to argue with you anymore, ma'am. The form of the question is improper, and the objection is sustained.

MS. BARNHART: All right. Thank you.

BY MS. BARNHART:

Q. Do you believe that any inmate who's been executed with midazolam suffered during his execution?

MR. MADDEN: Objection, Your Honor. She's not being specific about which executions.

THE COURT: All right. I think she's asking in general, does he know of any inmate who was executed with the use of midazolam who suffered during the course of the execution.

THE WITNESS: Your Honor, I don't know that.

BY MS. BARNHART:

Q. You heard testimony about -- well, first of all about -- and you were there for McGuire's execution. Do you believe Mr. McGuire suffered?

A. No.

Q. You don't want to believe he suffered, right?

A. No.

MR. MADDEN: Objection, Your Honor. It's argumentative.

THE COURT: It's proper cross. Overruled.

BY MS. BARNHART:

Q. And you don't want your team to have to wrestle with the possibility that Mr. McGuire suffered, right?

MR. MADDEN: Objection.

THE COURT: That's sustained.

BY MS. BARNHART:

Q. Do you want to believe that any inmate who's been executed with midazolam in the country suffered?

MR. MADDEN: Objection. Same objection.

THE COURT: I'll allow it.

THE WITNESS: I don't want to believe that any inmate suffers, whether they are being executed or not. I don't want to hear that. I don't like to hear that.

BY MS. BARNHART:

Q. Sure. Do you believe that Joseph Wood in Oklahoma suffered during his execution?

MR. MADDEN: Objection. First of all, Wood was not in Oklahoma.

MS. BARNHART: I'm sorry. I meant Clayton Lockett

in Oklahoma.

MR. MADDEN: Same objection. He wasn't there, and he doesn't -- no foundation.

THE COURT: If he has an opinion about the Lockett execution, he may give it. I don't know whether -- I think the director indicated that he had not read accounts from other states. So it's hypothetical.

MS. BARNHART: The director heard testimony from -- at this hearing about execution in other states.

THE COURT: Right. That's --

MR. MADDEN: Of newspaper accounts, read Dr. Bergese. I don't believe there's been any testimony about Lockett at all.

THE COURT: Mr. Mohr, do you have an opinion about whether Clayton Lockett suffered during his execution?

THE WITNESS: Your Honor, I want to be direct with you. I would need to review documents to be able to make -- because there are multiple situations that have come up, and I don't want to misspeak in this important proceeding. So I don't -- I don't know.

BY MS. BARNHART:

Q. You are familiar with the *Glossip* case from the Supreme Court?

A. I have some familiarity with it. I am not -- not to your legal ilk here.

Q. The *Glossip* case concerned evidence from Clayton Lockett's execution. Based on that, do you -- are you refreshed as to which execution I am discussing?

MR. MADDEN: Objection. Same objection. He's already testified.

THE COURT: Sustained.

BY MS. BARNHART:

Q. Are you aware of the Joseph Wood execution in Arizona that took over two hours?

MR. MADDEN: Same objection, Your Honor.

THE COURT: The witness can answer if he has familiarity with that execution.

THE WITNESS: I am familiar that Wood was executed in Arizona, and I've heard accounts that it took two hours.

BY MS. BARNHART:

Q. Do you have any reason to dispute those accounts?

A. Perhaps.

Q. And what are those?

A. I've heard in this courtroom testimony about the McGuire execution from an eyewitness that is in contradiction to what I saw watching the execution. So I think it would depend on the source.

Q. That would be Alan Johnson?

A. He was not in Arizona. The source, and I am not sure who the source is. I am not sure if it's a report. And I

would be glad to review it if you have that, but I don't have enough context about what happened in Arizona, other than the two hours to -- that was stated to put an opinion.

Q. Okay. I just was trying to clarify. You said you heard testimony about the McGuire execution that conflicted with your understanding, and was that the testimony from Alan Johnson?

THE COURT: Conflicted with his observation.

MS. BARNHART: Yes, Your Honor.

THE WITNESS: Yes.

BY MS. BARNHART:

Q. And so, although, if I understand your position, there is a possibility that the report of two hours is inaccurate, you have no reason -- you are not aware of any information to suggest that it's inaccurate?

A. That's correct.

Q. Do you believe that Joseph Wood suffered during that execution?

MR. MADDEN: Objection, Your Honor. No foundation.

THE COURT: Sustained.

BY MS. BARNHART:

Q. Do you believe hypothetically that an inmate whose execution took over two hours, using all the hypothetical facts of which you are aware relating to Joseph Wood's

execution, would have suffered?

A. I think if -- and I am not -- I am sure I am aware, but I don't have recollection of deciphering which one. Let me just be clear, because I do want to be responsive. I think if a person is conscious and the execution takes two hours, it's inappropriate, and I would think that the person would have suffered, physically or mentally.

Q. The most recent Alabama execution, less than a month ago, was Brooks, and you heard testimony about that execution. Do you believe hypothetically, if those facts about the execution are accurate, that Mr. Brooks suffered? I'm sorry. I apologize. Brooks was in January of last year. It's Smith who was in December.

THE COURT: Ronald Smith.

MS. BARNHART: Thank you.

THE WITNESS: I said -- I'm sorry. But these are very confusing, being able to separate the events and circumstances of these, and I don't want to respond to a specific inmate if I don't have specific recollection of the circumstances associated with that execution, and I just don't.

BY MS. BARNHART:

Q. You heard Spencer Hahn testify in this courtroom about the Smith execution in Alabama in December.

A. Yes.

Q. If the facts of his testimony are accurate, do you believe that Mr. Smith suffered during his execution?

MR. MADDEN: Objection, Your Honor, as to his testimony being accurate.

MS. BARNHART: It was a hypothetical.

THE COURT: It's a hypothetical. I agree with you, Ms. Barnhart. The objection's overruled.

THE WITNESS: Your Honor, if I could be refreshed on the specific details of that testimony, then I would be able to, I think, provide an opinion. But, again, I don't want to rely on my recollection of specific events because there have been a lot of events discussed in this case. And, quite frankly, detail is not an extraordinarily strong point of mine.

THE COURT: I think that's an appropriate response. The hypothetical needs to include the facts rather than just you heard it a couple days ago.

MS. BARNHART: Okay.

THE COURT: It would be helpful to me, too.

BY MS. BARNHART:

Q. Well, let me just put it this way: Hypothetically, if the testimony that you -- any of the testimony that you've heard about any execution is accurate, have you heard anything that would make you believe that an inmate who exhibited that behavior suffered?

MR. MADDEN: That's the same vague -- that was the same problem we had. Vague.

THE COURT: Sustained.

BY MS. BARNHART:

Q. I'd like to return to talking about Mr. McGuire's execution. Now, the protocol at the time of Mr. McGuire's execution required a specific amount of drugs to be administered, correct?

A. Yes.

MS. BARNHART: And for the record, that was 01-COM-11, October 10th, 2013, and it's Plaintiffs' Exhibit 10 at Bates page 111, and we are going to blow it up on the screen for ease of reference.

THE COURT: And I will respectfully request that I will be given a copy.

MR. MADDEN: I still haven't received a copy from the exhibits, I don't believe. Did you guys send those to me?

MS. WOOD: I brought those in. I was running a little late trying to print all them, but I do have them and we will mark them when we get to the evidence --

MS. BARNHART: I am just talking about the protocol at McGuire's execution.

MR. MADDEN: Right. There is a list of slides here.

MS. BARNHART: Exhibit 10. The slides are just pictures of the exhibit. Everything I am going to use is an exhibit.

THE COURT: I just need to have the exhibit.

MR. MADDEN: That's fine. As long as they are exhibits, I am fine with it.

BY MS. BARNHART:

Q. So this is Plaintiffs' Exhibit 10 at Bates page 111, and I believe it's section Roman Numeral VI(F)(4)(C).

THE COURT: Whatever you have up there does not reproduce page -- exhibit, page. 111.

MR. SWEENEY: Well, Your Honor, this is a clip. Bates page 111 is --

MS. BARNHART: The part that is --

MR. MADDEN: Yeah, they cut off.

THE COURT: Whatever's on the screen is not Bates page 111. So somebody who made whatever's on the screen needs to tell both me and the witness what it is that the witness is being shown.

MR. SWEENEY: This, Your Honor, is the protocol that was in effect on October 10th of 2013. The top of the slide is just a clip from the protocol to show that, which would be page 1 Exhibit 10, Plaintiffs' Exhibit 10.

The part that we are showing the witness is this part down here, which, I believe, is from Bates page 111.

MR. MADDEN: Your Honor, I would ask --

MR. SWEENEY: I'm sorry. 101. You guys have these exhibits.

MR. MADDEN: He should be given the entire exhibit.

THE COURT: Quiet.

MR. MADDEN: I am trying to make it easier. I understand what's going on.

THE COURT: So as I look at what's on the screen, what I see is part of Bates page 101.

MR. SWEENEY: Can I approach a minute, Your Honor, just to show you?

MS. KONYA-GRABILL: He's got it, Tim.

THE COURT: Below the authentication box, which purportedly bears the witness' signature -- that's your signature, is it not?

THE WITNESS: Yes.

THE COURT: Right below that is another excerpt from page 10 -- Bates page 101, Roman Numeral I, the "Authority" section.

Then below the "Authority" section, there's a space which represents an ellipses of many pages of Exhibit 1 -- Exhibit 10, I'm sorry -- and picks up on Bates page 111 with paragraph "C," which reads, "If the warden determines," and so forth.

Now, is my understanding accurate?

MR. SWEENEY: That's right. We are just trying to show him this part right here.

THE COURT: I understand.

MR. SWEENEY: That's all we want to show.

THE COURT: Go ahead and ask your question.

MR. MADDEN: My objection, Your Honor, is I want him to be provided the entire exhibit to look at.

MR. SWEENEY: We can certainly do that.

THE COURT: The record will reflect the Court has furnished the witness with Volume I of the plaintiffs' exhibits, including all of Exhibit 10.

Ms. Barnhart, are you ready with the question?

MS. BARNHART: I am, Your Honor.

THE COURT: Very good.

BY MS. BARNHART:

Q. Director Mohr, directing your attention to page 111 of this policy -- of the protocol, and the section is Roman Numeral VI(F)(4)(C), does this section -- I'll read it aloud, "Syringes 1 and 2, 10 milligrams of midazolam (under whatever name it may be available from a manufacturer, distributor, or compounding pharmacy) shall be administered or prepared with a --"

THE COURT: "Obtained or prepared."

MS. BARNHART: Thank you, Your Honor.

BY MS. BARNHART:

Q. "-- obtained or prepared with 5 milligrams over milliliter concentration, 40 milligrams of hydromorphone (under whatever name it may be available from a manufacturer, distributor, or compounding pharmacy) shall also be obtained or prepared with 10 milligrams/milliliter concentration."

Director Mohr, did I read that accurately?

A. Yes.

Q. And does that reflect the required amount of drugs to be administered to Mr. McGuire?

A. Yes.

Q. To your knowledge, was the required amount of drugs administered to Mr. McGuire during his execution?

A. Yes.

Q. And on what basis do you make that determination?

A. Two specifically. First of all, in Ohio, compared to other jurisdictions, we have a -- one individual that actually prepares the drugs and a second certified drug administrator under Ohio law that witnesses those, that preparation and administration of those drugs; as well as the disposal of the drugs, the handling of the drugs after they are used. And so there is a redundancy of confirmation.

And there is a further confirmation of that on the DRC

201 form, which is the form that we utilize to follow the path or the journey of the drugs through, from pharmacy through the completion.

Q. Now, in the case of Mr. McGuire's execution, Judge Frost ordered that the vials in that execution to be preserved, didn't he?

A. Yes.

Q. And the purpose of that preservation was that the vials could be submitted to a lab to be tested, correct?

A. I don't know. I don't have reason to doubt that.

Q. Okay.

A. I don't know that I have direct knowledge of that, though.

Q. Do you have reason to doubt that those vials were sent to a lab to be tested?

A. No.

Q. Are you aware of the results from the testing at that lab?

A. Not specifically, no.

Q. I'd like you to turn to Exhibit 55, which is at Bates page 562.

THE COURT: He needs Volume II then, doesn't he?

The record will reflect that Volume II of plaintiffs' exhibits has been furnished to the witness.

BY MS. BARNHART:

Q. The defendants have warned us that they would be objecting, so just to make the record clear, I'd like to ask Director Mohr, have you -- do you recognize this document?

A. First of all, I turned to the wrong page.

Q. Okay. Sure.

THE COURT: Tab 55. The bottom of the page reads Plaintiffs' Preliminary Injunction Hearing Exhibits, Page 561.

BY MS. BARNHART:

Q. And the document at the top has a symbol for NMS Labs. Are you with us?

A. Yes.

Q. Do you recognize this document?

A. No.

MR. MADDEN: Objection, Your Honor, to any further questions about this document. This document is not the -- does not belong to the Department of Rehabilitation and Corrections. He's never seen this document. This document belongs to a lab that the other side picked for the testing.

No one has come in here to authenticate this lab report. It is hearsay. Under no exception does it apply, and it is inappropriate to have him testify about it.

THE COURT: Well, I don't think there is a pending question. You can try.

BY MS. BARNHART:

Q. Director Mohr, if your counsel had received a document reflecting testing of the vials from McGuire's execution, is that something that you would want to have seen?

MR. MADDEN: Objection, Your Honor.

MS. BARNHART: Hypothetical.

THE COURT: That's perfectly appropriate. Overruled.

THE WITNESS: Just like the evidence in this case, I would always be interested in input.

BY MS. BARNHART:

Q. And if that document reflected that --

MR. MADDEN: Objection, Your Honor.

THE COURT: Such a document exists?

MS. BARNHART: It does, Your Honor. It's this document here, Exhibit 55.

THE COURT: You are representing to the Court and to Mr. Mohr that this document was received by defendants' counsel. How are you -- are you making a representation about how it got there?

MS. BARNHART: One minute, Your Honor. It's been Mr. Bohnert who was involved in the litigation; at this time I was not.

MR. BOHNERT: Your Honor, when we had gotten the court order to preserve the vials for testing from the McGuire execution, we never possessed the vials. The

defendants had the vials. They filled out the documentation. We gave them the name of the place to send the vials. They -- they did that, and then the results were sent, it is our understanding.

THE COURT: The results were sent?

MR. BOHNERT: The results were sent from the lab. And what I am saying is it is our understanding that the results were also sent to the defendants. We, the plaintiffs, received a letter from the lab with those results. It is our understanding that a letter was -- the results were also sent to the defendants because I believe they requested them.

I don't know that we were able to find that letter addressed to the defendants in the discovery that has been produced to us, which then meant we had to rely on the letter that we received. But it is our understanding that the defendants were also provided the results of the testing.

MR. MADDEN: Your Honor, may I respond?

THE COURT: Please.

MR. MADDEN: They picked the lab. Judge Frost, the day before the execution, ordered us to preserve the -- preserve the vials after the execution. For about a couple of months, we decide -- Allen picked the lab, you know. We did some research on the lab. I actually hired someone from

here in Dayton to go follow the drugs and watch the drugs being tested just in case I had to call her as a witness.

Now when I got this witness list, I noticed there was no witness from this laboratory to authenticate this document. So I didn't call my witness who went with the drugs to, and it would be -- it's -- this is hearsay.

THE COURT: Well, you are getting beyond yourself.

MR. MADDEN: Even if it's a hypothetical, Your Honor, you can only have hypotheticals with lay witnesses if it's based on the evidence. There is -- he's not an expert, and certainly not an expert on testing of drugs.

MR. BOHNERT: My question to you is are you representing to us and to the Court --

MR. MADDEN: No, I --

MR. BOHNERT: -- that the lab never sent to you a copy of this result?

MR. MADDEN: The only --

MR. BOHNERT: Because the agreement and the materials that are provided to us in discovery by your side, it's stipulated that those are authenticated.

MR. MADDEN: No, no, no, no. It's only stipulated that DRC records that we turn over in discovery are authenticated and admissible; not any, any records that you get from a testing lab in Philadelphia is authenticated, no.

MR. BOHNERT: I am saying the materials that you

sent to us, the agreement has always been --

MR. MADDEN: No, no, no.

MR. BOHNERT: -- if it was provided --

MR. MADDEN: No --

THE COURT: One at a time.

MR. MADDEN: Your Honor, this is addressed to them. This is their record. You know, I did receive a copy of that -- I did receive a copy of that report, but there needs to be a witness here to authenticate that record and make it admissible. I never consented to this drug -- this record, who is not DRC's record, to be authenticated and admissible.

THE COURT: All right. So, Director Mohr, have you ever seen that document?

THE WITNESS: No, sir.

THE COURT: Very well.

Go ahead, Ms. Barnhart.

MS. BARNHART: Your Honor, I'd just like to note for the record, since Mr. Madden has represented that they did receive this document, we did not receive a copy sent to the defendants in discovery to us and --

THE COURT: Go ahead.

MS. BARNHART: And that's a problem. We would like to orally move to compel them to produce that to us.

THE COURT: Denied.

MS. BARNHART: Your Honor, I can also -- I can call as a witness Carol Wright, whose --

THE COURT: What's the point?

MS. BARNHART: This document was addressed to.

THE COURT: What's the point?

MS. BARNHART: The point of what?

THE COURT: You want to get into evidence the content of this document?

MS. BARNHART: Correct.

THE COURT: No way. Can't be done through Carol Wright, Gary Mohr, Tom Madden, or Allen Bohnert.

MS. BARNHART: All right. Thank you, Your Honor.

MR. MADDEN: I ask that it be taken down from the screen.

BY MS. BARNHART:

Q. Director Mohr, if the required amount of drugs were not administered to Dennis McGuire during his execution, is that something that you authorized in advance in writing?

MR. MADDEN: Objection. Lack of foundation. No evidence of that.

MS. BARNHART: Hypothetical.

THE COURT: We are into the problem of many hypotheticals many propounded to this lay witness, and that objection hadn't been raised before, but do you want to make any argument about that, ma'am? This is not an expert

witness.

MS. BARNHART: No, Your Honor.

THE COURT: The objection's sustained.

BY MS. BARNHART:

Q. Director Mohr, if we could pull up on the screen, and you can turn in your binder Plaintiffs' Exhibit 50, which is at Bates page 549.

Are you there, Director?

A. Yes.

Q. And this is a letter that was sent to you, correct? You recognize this letter?

A. Yes.

Q. It was sent to you from Warden Donald Morgan, correct?

A. Yes.

Q. And it's dated January 16, 2014, correct?

A. Yes.

MS. BARNHART: Your Honor, we'd move to admit this exhibit into evidence.

THE COURT: Any objection?

MR. MADDEN: Let me just make sure if I recognize it.

MS. BARNHART: I am not sure it's necessary because it is a DRC document.

MR. MADDEN: It is a DRC document.

MS. LOWE: It's in the binder.

MR. MADDEN: It's in the binder, okay.

BY MS. BARNHART:

Q. So, Director Mohr, this letter was prepared, and it addresses the topic of the Dennis McGuire's execution, correct?

A. Yes.

Q. And it says that everything went fine in his execution, correct?

A. Not exactly.

Q. It says, quote, at the bottom the last paragraph, "The process worked very well, and the execution was carried out in compliance with 01-COM-11," correct?

A. It does say that.

Q. Thank you. Next if you could turn to Exhibit 49, which is at Bates pages 541 and 542.

Are you there?

A. Um-hmm.

Q. Do you recognize this document? So the record is clear, the slide is showing excerpts, as is indicated, excerpts from both Bates page 541 and 42 of the Executive Summary that is located at Exhibit 49.

Director Mohr, this exhibit is entitled "Executive Summary," correct?

A. Yes.

Q. It's dated April 28, 2014, correct?

A. Yes.

Q. And if we could move to the next slide.

On page 542 of the exhibit, which is the second page there, do you see the paragraph beginning with "Also as part of its post-execution review"?

A. Yes.

Q. Does that paragraph continue that "DRC analyzed the use of the combination of midazolam and hydromorphone. DRC's attorney and its assistant attorney generals discussed the events and the observations of the McGuire execution with its expert witness, Dr. Mark Dershwitz."

Do you see that?

MR. MADDEN: Objection. Relevance.

THE COURT: Overruled.

BY MS. BARNHART:

Q. Now, Director Mohr, Dr. Dershwitz was upset about these statements, wasn't he?

A. I don't know.

Q. You don't know?

A. No.

Q. If you could turn to Tab 51 in the exhibit binder, which is at Bates pages 550 and 551.

And for the record, our slide reproduces excerpts from both of those pages beginning on page 550 with the top of a letter dated April 30th, 2014, addressed to Mark Dershwitz.

And then the second part of the slide has the end of the letter that bears Steve Gray's signature from Bates page 551.

Do you recognize this letter, Director Mohr?

A. I don't know that -- I don't recognize it from previous experience, no.

Q. Okay.

A. I have not seen it.

Q. You are not aware that Stephen Gray, your chief counsel, sent a letter to Dr. Dershwitz following the release of the Executive Summary that we just looked at right before this?

MR. MADDEN: Objection, Your Honor. That's not what he said.

THE COURT: Sustained.

BY MS. BARNHART:

Q. Are you aware that Steve Gray sent a letter to Dr. Dershwitz following the release of the Executive Summary that we just looked at right before this exhibit?

A. I'm aware that Steve Gray communicated with Dr. Dershwitz. I was not aware what form. And I did not read this letter until now.

Q. Okay. Does this letter state, "The purpose of this letter" -- this is in the second paragraph on the first page. "The purpose of this letter is to make absolutely

clear that you had no involvement whatsoever with DRC's decision to change the policy by increasing the amounts of the doses of midazolam and hydromorphone"?

A. That's what is stated. That's what it states.

Q. And do you know why Steve Gray sent that letter to Dr. Dershwitz?

A. No.

MR. MADDEN: Objection, Your Honor.

THE WITNESS: Sorry.

THE COURT: Overruled. The answer is "No," and it can stand.

BY MS. BARNHART:

Q. And does the letter also say -- I'm sorry. We're moving back now to the Executive Summary, which is Exhibit 49, which is Bates page 541. And the slide shows one paragraph excerpt from that letter. The paragraph begins, "As part of that review."

Do you see that paragraph, Director Mohr?

A. Yes.

Q. And that paragraph states, "As part of that review, DRC examined accounts from eyewitnesses, including nearly 20 DRC employees and family members and media representatives."

Do you see that statement?

A. I do.

Q. Is it -- do you know that to be an accurate statement?

A. I have no reason to believe it's not.

Q. Do you know of any family members or media representatives who were interviewed in the manner suggested in this sentence?

A. No, not specifically.

Q. Would you have reason to dispute that no family members and no media representatives were interviewed?

A. I don't --

MR. MADDEN: Objection. He already testified he doesn't have knowledge.

THE COURT: Sustained.

BY MS. BARNHART:

Q. Going back -- well, we're still on -- are you aware of -- of anyone besides DRC employees being interviewed for this after -- or this Executive Summary? Do you have personal knowledge of anyone besides a DRC employee who was interviewed?

A. I don't have personal knowledge.

Q. Do you have any kind of knowledge?

A. I understand --

MR. MADDEN: Objection. He's already said he doesn't have personal knowledge.

THE COURT: Also hearsay. Sustained.

BY MS. BARNHART:

Q. Director Mohr, the protocol at the time Dennis McGuire

was executed, which we have looked at previously as 01-COM-11, October 10th, 2013, which is Exhibit 10. It's Bates page 107, and I'm looking at -- the slide shows the section numbered 4, "Training," which is at the top of Bates page 107. Are you there --

A. I am.

Q. -- director? And does this protocol state that "Training shall be addressed" -- I'm sorry -- "training shall address any accommodations or contingencies that might be anticipated"?

A. Yes.

Q. And are you aware that Team Member Number 10 testified -- and we have his deposition testimony here. This is document number 879-1 that was filed in this case. The PageID is 28781. And Team Member Number 10 testified that he was surprised -- I believe he also testified as to this during this hearing, which you have heard as well -- that he was surprised by the -- by what happened at McGuire's execution.

And the question is, "You were not prepared for that type of reaction from Mr. McGuire that he exhibited that day, correct?"

And the answer is, "Correct."

Question: "And so all the training that you had gone on -- that had gone on up to the McGuire execution did not

prepare you for what you actually saw, right?"

Answer: "That's correct."

Are you aware of that testimony from Team Member 10?

A. Yes.

Q. As the incident commander, you did not authorize in advance a contingency that did not have to be addressed regarding McGuire's execution, correct?

MR. MADDEN: Objection. That's a misleading question. And vague. First of all, the part of the policy she's referring to refers back to the 21-day assessment. Unless she can relate it back to that, I am not sure that this is relevant.

MS. BARNHART: I am referring to the training part of the policy.

MR. MADDEN: That's right, the training part is any contingencies brought about by the 21-day assessment.

THE COURT: Tom, can you give me a page reference you are referring to there?

MR. MADDEN: Yes, Your Honor.

Yes, Your Honor, page 6 of 19, Plaintiffs' Exhibit Number 10, Bates stamp Number 106. And then 7 of 19, Bates stamp 107.

MS. BARNHART: Tom, you identified page 106 that has --

THE COURT: 107.

MS. BARNHART: 107. So 103 has the section "Prisoner." That's what you are referring to as the 21-day assessment?

MR. MADDEN: I'm talking about the 21-day at the -- the 21-day assessment at CCI, which is 3a.

MS. BARNHART: And I'm talking about the training, which is not in Section 3, it's in Section 4.

MR. MADDEN: Well, that's -- they are related.

THE COURT: Okay. I'm reading Section 4a, and it reads, "The execution team shall begin conducting training sessions no less than once per week until the scheduled date of execution. The training shall address any accommodations or contingencies that might be anticipated."

I take it, Ms. Barnhart, your question, your use of the word "contingency" refers to this paragraph?

MS. BARNHART: That's correct, Your Honor.

THE COURT: All right. And the question, Mr. Mohr, is, as the incident commander, you did not authorize in advance a contingency as it's referred to here in paragraph 4a, a contingency that did not have to be addressed regarding McGuire's execution; is that correct?

MR. MADDEN: My objection has been withdrawn, Your Honor.

THE COURT: Thank you.

THE WITNESS: The two negatives are not --

MS. BARNHART: I can rephrase.

THE WITNESS: -- a question and I, quite frankly, don't know how to answer the thing.

THE COURT: All right. Is there any contingency that you were aware of at the time that you told the execution team they didn't have to train for?

THE WITNESS: I did not.

THE COURT: Ms. Barnhart, your next question.

MS. BARNHART: Thank you. I believe that answers my question.

THE COURT: Good.

MS. BARNHART: Thank you, Your Honor.

BY MS. BARNHART:

Q. Do you think you let your team down by not preparing them for what they saw in the McGuire execution?

A. No.

Q. At your deposition, you told us that you believed the State's expert, Dr. Dershwitz, over the plaintiffs' expert, Dr. Waisel, as to what would transpire in the McGuire execution, correct?

A. Yes.

Q. Did what Dr. Waisel predict would happen about the inmate gasping and struggling for breath indeed happen during McGuire's execution?

A. No, it did not.

Q. Do you know, following Dr. -- following Mr. McGuire's execution, believe that Dr. Waisel's opinion was more correct than Dr. Dershwitz's?

A. No.

Q. Thank you. You testified previously that you removed midazolam from Ohio's protocol in January of 2015 for -- I think there was a two-part reason, and we have some of your deposition testimony to help illustrate that, but -- okay, we don't.

So I will just -- so this is from your deposition, two weeks ago I believe now, and what you told us was that, first, you made the decision to remove the combination of hydromorphone and midazolam because you had some optimism that you'd be able to obtain drugs that had been used before, pento and sodium thiopental; is that accurate?

A. Yes.

Q. And then you went on to say, and this is if you want to follow along, it's the next slide. It's line 14.

"And then, finally, Allen, I think the combination of hydromorphone and midazolam, I had lost some confidence."

And you were asked why. And you said in the experience of the other jurisdictions. And you were asked to tell me a bit more. And you said that there had been a couple of experiences that have taken either a very long time or repeated doses in states that were in fact using a

three-drug protocol that seemed to be successful in achieving a humane execution.

So it's fair to say that you had lost some confidence in using hydromorphone and midazolam. That's what you testified to, correct?

A. Yes.

Q. And have you regained confidence today in hydromorphone and midazolam?

MR. MADDEN: Objection, Your Honor. Relevance. What we're talking about is a 500 milligram as an anesthetic before the two drugs, not hydromorphone, which their own expert testified has a synergistic effect.

THE COURT: The question as put to the witness is hypothetical, and the objection is sustained.

BY MS. BARNHART:

Q. Had you previously lost confidence in midazolam?

A. No.

Q. Do you believe that the U.S. Supreme Court has said in *Glossip* that Oklahoma protocol, which is the same protocol that Ohio has currently adopted, is constitutional?

A. I understand that to be the case.

Q. Okay. Now, I know you are not a lawyer, but even as a lay person, you understand that the Supreme Court is kind of at the top -- right? -- and all the courts below it has to follow what it says, correct?

A. Yes.

Q. And so if the Supreme Court said something was constitutional, a lower court isn't free then to decide whether it is unconstitutional; is that correct?

A. I am in speculative grounds here, Your Honor. I think that sounds reasonable.

Q. If the Supreme Court had said that Oklahoma's protocol was constitutional, do you believe we would be having this hearing today?

MR. MADDEN: Objection.

THE COURT: Sustained. Calls for a legal conclusion.

MR. MADDEN: Okay.

BY MS. BARNHART:

Q. Okay. Well, I'll just read to you something that Judge Merz has said actually in his order that was denying a motion to quash your deposition. And he said that "Defendants have objected that any information possible to be obtained from Director Mohr would be irrelevant, and, in part, that objection is based on the assertion that the United States Supreme Court has --"

THE COURT: A little slower.

MS. BARNHART: Sorry. Yes, Your Honor.

BY MS. BARNHART:

Q. "-- that the United States Supreme Court has affirmed a

lethal injection protocol which is substantially similar to Ohio's, and that the defendants' position is consistent with your position that the Supreme Court said that that protocol is constitutional." Correct?

A. I understand that. I would agree with that.

Q. Okay. Judge Merz wrote that "That misstates the holding in *Glossip*, because, in reaching that conclusion, the Court reiterated a long-standing rule that the Supreme Court reviews District Court factual findings for clear error, and that that review is even more differential from the factual findings that have been reviewed and affirmed by an intermediate appellate court. The Supreme Court does not affirm protocols."

MR. MADDEN: Objection, Your Honor. This is a legal argument, and it's best reserved for closing arguments. It's asking for a legal conclusion.

THE COURT: I don't know that there is a question there.

BY MS. BARNHART:

Q. Judge Merz continued to say that "The Supreme Court did not hold that a state cannot violate the Eighth Amendment if it uses a lethal injection protocol similar or even identical to that used by Oklahoma. Perhaps plaintiff here can make a better case against midazolam than the plaintiffs in *Glossip*, but they have not yet had that opportunity since

no lethal injection preliminary injunction motion has been heard in this case since *Glossip* was decided."

Hearing that, Director Mohr, do you still believe that the Supreme Court held that Oklahoma's execution protocol was constitutional?

MR. MADDEN: Objection. Calls for a legal conclusion and argumentative.

THE COURT: Sustained.

MS. BARNHART: Just so I can be clear as to what's permissible, Director Mohr testified that he does believe the Supreme Court held that the protocol was constitutional.

THE COURT: Right.

MS. BARNHART: And I may not ask him whether --

THE COURT: Whether I have persuaded him to the contrary?

MS. BARNHART: Correct.

THE COURT: No.

MS. BARNHART: Thank you, Your Honor.

BY MS. BARNHART:

Q. Director Mohr, what do you think the chance that Ohio's inmates will suffer under Ohio's execution protocol is now after you have heard the testimony in this case and carefully reviewed all of the expert reports?

MR. MADDEN: Objection. Speculative.

THE COURT: Overruled.

THE WITNESS: Did you say what do I think the chance?

BY MS. BARNHART:

Q. I did.

THE COURT: What do you think the chance is that Ohio's inmates, presumably those death-row inmates executed under this protocol, will suffer under this execution protocol, what do you think that chance is now after you have heard the testimony in this case and carefully reviewed all of the expert reports?

THE WITNESS: I do not believe that they will suffer pain.

BY MS. BARNHART:

Q. A zero percent chance?

A. I do not believe -- if I -- I don't believe they will suffer pain.

Q. So you are saying that the level of risk that is acceptable to you is none?

MR. MADDEN: Objection.

THE COURT: Sustained. Misstates the testimony.

MS. BARNHART: Okay. Thank you. That's fair.

BY MS. BARNHART:

Q. So you are saying that you believe there is no chance the inmates will suffer?

MR. MADDEN: Same objection.

MS. BARNHART: I thought --
THE COURT: Sustained.
MS. BARNHART: Could we --
THE COURT: It's a proper cross, but I don't think that's what he said.
MS. BARNHART: Okay. Can we read back what he said? I just may --
THE COURT: Yes. "I do not believe -- I do not believe they will suffer pain."
MS. BARNHART: Okay. Oh, because I left out the word "pain"?
THE COURT: No, no. That's his answer, "I do not believe they will suffer pain."
MS. BARNHART: Okay.
THE COURT: You are trying to get -- as I understand it, you are trying to get a quantification.
MS. BARNHART: Thank you, yes.
BY MS. BARNHART:
Q. So my question is what do you think the chance that the inmates will suffer pain is?
A. I drive to Lucasville from my home for these executions always, having concern regardless of whether it's a single-drug or multiple-drug approach, that something could go wrong -- IV access, regardless of the protocol. There is tremendous pressure put on our team in a very difficult

situation. Something could happen.

I don't feel at this moment -- I don't know what a percentage is, but there's not been -- in 11 executions that I have conducted, there has not been a cavalier attitude that I think there is no chance, regardless of the protocol. And I think we've had something like eight or nine protocols in the last ten years of varying degrees. There has not been a day that I don't worry.

There is a chance regardless of the drugs being used that someone could experience pain, but I'm not -- I would not proceed if I believed that they would. If I believed that they would suffer, I would resign my position and not go through with this, despite it being an Ohio law.

Q. I appreciate that. Thank you.

So I'd like to get an understanding of your belief. If it was more likely than not, so that would be anything over 50 percent, that the inmates would suffer, would that form your belief --

THE COURT: The question -- your question is inmates, pleural?

MS. BARNHART: An inmate in an execution.

MR. MADDEN: Asked and answered. He's answered this.

THE COURT: Overruled.

THE WITNESS: I would not proceed with an

execution. I'd have a discussion with the governor to determine whether -- not just the process or whether I am the right person. I would not proceed if I believed there was a likelihood that I would cause an inmate to suffer. I would not proceed with that.

BY MS. BARNHART:

Q. If it was -- if we just flipped it, if it was 51 percent that they wouldn't suffer and 49 percent chance that they would, would that be a belief under which you would not proceed?

MR. MADDEN: He stated unequivocally that he would not do that. These percentages, the same answer's going to be the same. It's asked and answered.

THE COURT: Well, I disagree, Mr. Madden.

THE WITNESS: I don't know. I'd have to -- I'd have to ponder that more than a 30-second response.

BY MS. BARNHART:

Q. Um-hmm.

A. I don't know what the threshold is.

Q. Okay.

A. If I believed it was likely to happen, I would not proceed with an execution, and I -- I don't know what a 30 percent or a 48 percent means right now. I don't know. This is too serious to give a flippant, one-minute pondering of this. I don't feel that that is worthy -- that this

issue is much more worthy than my response in that way.

Q. Here's the reason why I am asking: The burden on the plaintiffs in this proceeding is much higher than 50 percent. We must show, at least for the *Baze/Glossip* claims, that there is a substantial risk of harm.

And so the reason why I am asking you this is to know whether you will simply rely on the result -- the legal result in this case as to whether plaintiffs prevail on that higher burden, or whether, if plaintiffs had convinced you to a lesser degree that doesn't meet substantial likelihood of harm but is more likely than not, if that would cause you not to go forward?

A. Let me respond, and I'll respond, Your Honor -- I want to be responsible. But let me respond to a note that I passed to this group of attorneys before I started.

Q. Was it asking for legal advice?

A. No, it was not.

THE COURT: Go ahead.

THE WITNESS: I think this is important.

THE COURT: I do, too.

THE WITNESS: And I think, Your Honor, you and I might be the only ones in here on this page, maybe. We're all in this together. The outcome of this, whether it is successful or not, is not in my mind defined by Your Honor's decision, one appellate decision at all. It is based on the

outcome of an execution; and if, in fact, it is humane and people are not suffering, regardless of which way it goes.

And so the decision here is minuscule in my mind compared to the impact on people. And people -- inmates are people.

So I don't know where that goes in terms of the responsiveness to this. And that's why getting into these percentages, quite frankly, demeans from me my fundamental tenet that I do not want to proceed with an execution that I believe when there is a likelihood that someone will suffer. I will not do that.

BY MS. BARNHART:

Q. And so if I'm hearing what you are saying then, regardless of what the legal decision is, if you are convinced that it's likely, more likely than not, that the inmate will suffer, you will not go forward?

A. And that has been my practice in six years, and it's been my experience, and those folks know it with discussions with the governor. That has not been the end product of a judicial proceeding, it has been what we believe is the right thing to do, and that has been the overriding part of our decision.

We will obviously comply with the legal proceedings, but there's another level and another dimension to this that I'll take to my grave.

Q. Thank you. Previously, for the McGuire execution, we talked about how you believed the State's expert, Dr. Dershwitz, over the plaintiffs' expert, Dr. Waisel. Do you believe the State's expert, Dr. Antognini, over the plaintiffs' expert, Dr. Bergese, here?

A. Yes.

Q. Have you trained your team for any contingencies in the upcoming execution?

A. We have met --

THE COURT: I am going to interrupt at this point. That's a new topic, and we haven't taken a morning recess yet, so we will do that for ten minutes.

THE COURTROOM DEPUTY: All rise. This court stands in recess.

(Recess taken from 10:51 a.m. until 11:02 a.m.)

THE COURT: Ms. Barnhart, you may resume your examination.

MS. BARNHART: Thank you, Your Honor.

BY MS. BARNHART:

Q. Director Mohr, is the fact that Arizona recently committed to never using midazolam again significant to you?

I see your counsel is not here.

THE COURT: Let's wait.

(Off the record.)

THE COURT: Ms. Barnhart, you may resume your

examination.

MS. BARNHART: Thank you, Your Honor.

BY MS. BARNHART:

Q. I'll ask you again, Director Mohr, for your counsel's benefit.

Is the fact that Arizona recently committed to never using midazolam again significant to you?

A. Yes.

Q. How so?

A. Any input regarding lethal injection, whether it be in this courtroom or from any other director that's sitting in my shoes, is -- I hold as significant.

Q. And is the same true of Florida?

A. Any director that would make any change or any comment is significant.

Q. How many states would have to get rid of using midazolam for Ohio to make that decision?

A. I don't know.

Q. Did you hear Dr. Bergese testify that a response to the consciousness check that's intended to be used in Ohio's protocol would reveal that the inmate is still conscious, correct?

A. I'm not sure that I --

Q. I can see you are confused.

A. Yeah, I am confused.

Q. I was trying to break it up, but maybe that was the wrong approach. Dr. Bergese testified -- did you hear Dr. Bergese testify that while a response to the consciousness check would indicate consciousness, the same could not be said of the lack of a response? Just because someone does not respond does not mean that they are unconscious. Did you hear that testimony?

A. I did.

THE COURT: Excuse me.

MS. BARNHART: Did not mean that they are -- if you don't respond.

THE COURT: You are right.

MS. BARNHART: Thank you, Your Honor.

THE COURT: Complex grammar, but you are right.

MS. BARNHART: Thank you.

BY MS. BARNHART:

Q. And, of course, when we're talking about consciousness, we're talking about being insensate to pain and unaware.

A. Unconscious.

Q. Yes. Correct, thank you.

Do you believe Dr. Bergese?

MR. MADDEN: Objection, Your Honor. I don't think she's laid foundation that he understands what she's asking. Vague.

THE COURT: As I understand the question, it is

that assuming Dr. Bergese is right that an inmate might not respond to one of the consciousness checks but still be conscious, do you agree with that?

THE WITNESS: I agree that he said that. I have no reason to believe that -- I think that's possible, yes, Your Honor.

BY MS. BARNHART:

Q. You believe Dr. Bergese?

MR. MADDEN: Objection.

THE COURT: In that respect, yes, but you are asking general.

THE WITNESS: Yes.

BY MS. BARNHART:

Q. Now, you've heard testimony from Dr. Bergese that the paralytic, rocuronium bromide, is very painful if injected, and you also testified that you understand it as well from your training, correct?

A. I understand it is painful, yes.

Q. All right. So would it be fair to say that if the department were to remove the paralytic, the painful second drug from the protocol, that that would eliminate the risk of pain from that drug?

A. Yes.

Q. Thank you.

MS. BARNHART: No further questions.

THE COURT: Thank you.

Redirect at this point?

MR. MADDEN: Yes, Your Honor.

Your Honor, at this time I am going to do a direct.

DIRECT EXAMINATION

BY MR. MADDEN:

Q. Could you briefly describe your duties as director of DRC?

A. As director of the Department of Rehabilitation and Corrections for the last six years, we together have the responsibility of managing an agency with 27 prisons, five parole regions, 51,000 inmates, 36,000 people on parole supervision, 40,000 people who have committed felonies or under community supervision and not ours.

We have the responsibility for managing 1/4 of the state work force, 12,300 employees, and 24-hour/7-day-a-week operations.

We have the responsibility of a budget of approaching $1.8 billion a year, which is too much, quite frankly, and pushing legislative reform in this state to make sense and support the logic and research that's out there.

And I know there are many other aspects to the job, but it's significant.

Q. Now, what is your objective in conducting an execution?

A. The objective, not just verbally here but stated in

every incident action plan that we do, and, quite frankly, stated at the beginning of every status briefing that we have, is to have -- establish a humane execution that is consistent with law and the expectations of the federal court.

Q. And kind of what does that mean to you?

A. Well, I've learned from Judge Frost over the years, and it's been public, that, one, humane means -- in my mind it means humane to every party involved. First of all, to the person being executed.

It also means, which is why I have fought further, more explicit forms of the execution process, there needs to be humane to those witnesses, those family members, those victims' members that are present, to our team that has to administrate -- administer this execution. So I think there is a humanity to the process.

And, further, I think we've been in court, and I counted well over 2,000 pages of my own either deposition or testimony in these proceedings. We have to be absolutely compliant with 01-COM-11, which is what the Court has allowed us to proceed with federally.

And then I further have, in some cases, conflicting responsibility of trying to comply with the Ohio law that indicates that we are to commit executions on specific dates as specified by the Ohio Supreme Court, and at some point

they converge, and I guess we are converging here today on a number of those dimensions.

But it means that there is humanity in this process to everyone involved.

Q. You understand that the -- what this Court says about the Constitution, that that's the minimal standard that you must meet as compared to other standards that you hold higher?

A. I understand that.

Q. What does that mean?

A. It means, one, we better take care of what the Court says as a foundation, but it also means that the intelligence that we've received here in four days of this, from experts and from other people, all of that needs to be taken into consideration to ensure that above the minimum standard -- quite frankly, I believe you have to go above the minimum Supreme Court standard to get to a process that represents the humanity of all involved. And that's what we strive to do, and that's what, you know, we think about. That's what I think about, carrying this responsibility.

Q. Do you expect the team to go beyond this standard?

A. I expect it all the time. I expect -- we implemented the incident command system to ensure quality in the processes that we continue to try to enhance. Where we meet and we talk. You know, I don't think the Constitution talks

about having a planning meeting where incident objectives and control objectives and all of the parties are on the phone talking about not just the protocol and reminding us and, quite frankly, the five core components that we now have established in our protocol. I don't know that there's -- I'm not legal. I don't know that the Supreme Court has said there's five core standards. But we -- we adopted the four. I have expanded it to five in this process because of the importance of going beyond that.

We rehearse. We train. I was looking at Florida's process. They train once a quarter and then once before an execution. We go -- I assume that they are constitutionally appropriate. So the training and rehearsals and even our policy protocol says we rehearse weekly at least four times before an execution. I can't remember the last time we've rehearsed less than six times before an execution.

Q. Do you expect the medical team to use multiple consciousness checks?

A. I expect them to use multiple consciousness checks. And, quite frankly, what will be reflected in 204s will be at least three consciousness checks, and one of those consciousness -- at least one of those consciousness checks will come from at least -- I don't know what the proper term is. I am calling it domains, like I know what I am talking about. I don't know the technology. But it will be from --

it will be an audible alert, it will be a tactile or touch reaction, and it will be a reflexive reaction.

And not only will that happen and not only will the drug administrator do it, it will be witnessed by a second drug administrator in the chamber to ensure that we observe fully and have a broader understanding of any reaction that goes on.

And that will be reflected in the 204s, the instructional document that the teams get to instruct them on their expectations of completing that assignment.

Q. How many executions have you overseen?

A. Eleven.

Q. And what drugs were utilized in all but one of those executions? The last one being Dennis McGuire.

A. Well, let me -- I want to be accurate, Tom. The first execution was Mr. Spisak, and we used thiopental sodium. The next nine were pentobarbital. And then the last one was the combination of hydromorphone and midazolam.

Q. And do you recall roughly when the last execution you had using pentobarbital? If I told you September of 2013, does that sound right?

A. I would have said 2013. I didn't know when.

THE COURT: Do you remember who that was?

MR. MADDEN: Yes.

THE COURT: Don Palmer?

MR. MADDEN: No. It was after him. The guy who shot all the cops. Harry Mitts.

BY MR. MADDEN:

Q. Why did you stop using pentobarbital?

A. We can't get it. We couldn't get it then, and as recently as this week, we've not been able to obtain it.

Q. Tell me -- tell me about that. Tell the Court about that.

A. Well, number one, I've utilized a significant amount of my chief counsel's time trying to determine where we could obtain this.

MS. BARNHART: Excuse me. Objection, Your Honor. I believe the director's testifying about efforts to procure drugs, which the defendants have taken the position are covered by a protective order and the plaintiffs are not allowed to ask questions or obtain discovery about this information.

THE COURT: Well, the protective order doesn't say you can't waive, does it? If Mr. Madden brings it out on direct examination?

MR. MADDEN: Judge, I think he can testify without waiving the -- he can testify about general efforts to obtain the drugs without getting into specifics, without waiving.

THE COURT: Well, we'll see what he testifies to.

It's peculiar to have plaintiffs' counsel raising defendants' privilege objection.

MS. BARNHART: Well, the reason, Your Honor, is that defendants, if they are able to selectively waive the protective order to establish that they can obtain the drugs but then we're not allowed to ask any details to question the accuracy of that information, we're put at a severe disadvantage.

MR. MADDEN: As long as they acknowledge that that's their burden to produce evidence where these drugs can be had then --

MS. BARNHART: That's not -- we do not acknowledge that.

THE COURT: You may proceed, Mr. Madden. We will deal with how much waiver we get when we get recross.

BY MR. MADDEN:

Q. If you had the barbiturates in your possession, would you use them?

A. Yes.

THE COURT: As I understand it, Mr. Mohr, the listing of options in the current protocol is not -- even though the two barbiturates, thiopental sodium and pentobarbital, are listed either first and second or second and first, that's not intended to establish as a matter of the protocol what order they have to be used in, is it?

THE WITNESS: Your Honor, it is not. It just -- and, you know, within 14 days the warden has to advise myself as well as the inmate of the intended drugs, but those are just a list of permissible drugs, and core component number 2 says simply that we will only use those drugs.

THE COURT: Right.

BY MR. MADDEN:

Q. Do you have a preference, whether using a one-drug protocol with the barbiturates or the three-drug protocol that you currently intend to use, which would you use?

A. I would clearly use the one-drug protocol, pentobarbital or thiopental sodium.

Q. And that is based on what?

A. It's, one, based on my experience in the eleven executions that we've had, number one.

And, number two, it is simpler in terms of the pressure, you know, applied to the team with three drugs and multiple syringes. But, most importantly, and I guess most importantly -- and I don't usually do this very often, but to my humanity and I believe everyone else's, they have been very successful in terms of resulting in death that has been humane and peaceful.

Q. Let's go back to January of 2014. Do you recall the Dennis McGuire execution?

A. I do.

Q. Turn to Defendants' Exhibit 2.

THE COURT: I don't know that he has that in front of him.

MR. MADDEN: Volume I.

BY MR. MADDEN:

Q. Do you recognize this document?

A. I'm looking at our policy 01-COM-11 that was in place on October 10, 2013.

Q. And what were the -- what were the drugs used for Mr. McGuire?

A. We used two drugs within a single injection, which were hydromorphone and midazolam.

Q. So the drugs were administered together; is that your recollection?

A. Yes.

Q. Now, pursuant to the policy, had the execution team performed the rehearsals prior to that execution?

A. Yes.

Q. How do you know that?

A. There are multiple ways. There are multiple ways, and I'll try to be brief with this. One, we -- as we conduct our initial planning meeting, we identify the dates and times and schedules of the scheduled training meetings. Every week we have status briefings of which the operations

chief, which is the warden at the Southern Ohio Correctional Facility, Mr. Erdos, at this time Mr. Warden -- or Morgan, reports out.

And I ask them in the status briefings about who attended, the outcome of that for those rehearsals that I am not in attendance at, and they report specific attendance and specifically what they did.

Q. When, where, and how are these meetings conducted?

A. These meetings are most frequently telephonic, with members of the entire team at Chillicothe, where they house death row. That's our Chillicothe division. Our Lucasville division, of the leadership at Lucasville, the leadership that's involved in the execution team; the command staff, which would include myself, the assistant incident commander, Mr. Voorhies; chief legal counsel, Steve Gray; our communications director; our victims' coordinator; our planning chief, currently is Donny Morgan that manages that.

So it's usually about a 45-minute -- 35- to 40-minute meeting. Strict agenda. We go over the core -- I go over every time the five core elements of 01-COM-11. And the overarching objective. We go through the control objectives that specifically state what will be achieved and when.

And if that time is in place where that function is to be done, they report out on that. That's also reported on a 213, which is a written communication that describes the

specific procedure that was to be done in detail. So we have that access.

We have reports from Lucasville, from Chillicothe, and from every member there.

And then we conclude with really a highlight of the fifth core competency, or the fifth core component when I ask is there anything at this moment in time, anything that brings anyone any concern about any deviation from any of the noncore components, I want to hear it now.

Q. When do you have these unit meetings?

A. They are weekly. They are status briefings. We have them weekly. Then they commence with the beginning of the operational period. We have two operational periods traditionally, minimally starting in advance of 30 days before the execution. And then the final period, second operational period starts 24 hours in advance of the execution.

And it concludes with what I consider to be the most important piece, which is the confirmation briefing where on the wall we have these listing of all of the checklists of everything that needs to be done, from vein assessments, to the bringing of the drugs to the equipment room, to the mixing of the drugs that only can be reported as we learn clearly by the drug administrator that's prepared it. It's witnessed by a second drug administrator. And every

particular -- from communication, from checking phones. All these checklists are on the wall before we commence, before I give the -- say, okay, we're ready to proceed.

So I have talked so long I don't even know what the darn question is.

Q. Okay. Turn to Defendants' Exhibit 22.

Do you recognize this document?

A. I'm looking at the 214, which is a unit log, dated December 16, 2013.

Q. Go to page 199. What is that document?

A. It is a unit log from the operations section, with Donny Morgan being the operations chief, dated January 15, 2014.

Q. And this unit log pertained to what execution?

A. It would be the McGuire execution.

Q. And tell the Court what this -- take a look at the document and tell the Court what this -- the entire document. I think there are several pages.

A. Um-hmm.

Q. And then tell the Court what you understand this to be.

A. I went to page 200, just for the record, 199 and 200. I assume that's it.

Every section -- the incident command system is based on the incident commander, an assistant incident commander in this case, or deputy. I see Ed would correct me with

that, Mr. Voorhies.

In this particular execution, Donny Morgan, who was the warden at the Southern Ohio Correctional Facility, was operations chief. The operations section under ICS, it was developed originally by the forestry department to fight forest fires, and adopted after the Lucasville riot.

The operations chief manages the doers, the people that do the work. In this particular case, this is a log of all of the activities that related to the operations, the execution team's preparation for the McGuire execution. So that's what I'm seeing here. And then it lists the specific tasks and steps and actions that were done.

Q. Does it reflect what it -- what the discussions that you had during -- about the rehearsals in preparation for the -- for the McGuire execution?

A. Yes.

Q. Now, pursuant to 01-COM-11, had the 21-day medical assessment of the prisoner, Dennis McGuire, been conducted before his execution?

A. Yes.

Q. And tell the Court what occurs during a medical/mental health assessment 21 days before an execution?

A. Approximately -- at least 21 days in advance of an execution, there is a requirement, and that's outlined in our control objectives. It's outlined in our initial

planning meeting so people know in advance the date that it has to be done. We have both -- both a -- taking place at Chillicothe, which is the current housing area for death row, a medical examination, and that consists of a full review of the medical chart, the medical record, the historic medical record, and in some cases, based on the length of time, that could be multiple volumes of materials; a physical examination of the inmate. How you doing? You know, let's take a look at you. But it always has to include a hands-on vein assessment to address the -- any perceived concerns with access to the veins.

And then, separately, there is a mental health assessment that is done. Same process: looking at the records, looking at the history, looking at medications that are being used, as does the medical piece; looking for any potential element that may be in place that the operations chief, Mr. Morgan, who's supervising the execution training, should be aware of to plug in as contingencies to consider that may take place during the execution.

Q. Why do you think that's important?

A. Well, it's important for the overarching, the humane execution. Given, you know, Mr. -- we have had inmates that have posed significant issues that those exams have provided insight in terms of training. I think of Mr. Smith.

THE COURT: Kenneth Smith?

THE WITNESS: Your Honor, I don't want to -- who had the breathing issue where we built the -- or had the -- practiced the wedge, because -- I don't think it's --

UNIDENTIFIED: It is Kenneth.

BY MR. MADDEN:

Q. Wasn't the 21-day assessment done because of Mr. Smith?

A. I can't fully remember. We had so many iterations and changes and enhancements. It may have been. I know that that was important as we planned for that execution.

THE COURT: The reason I bring up Mr. Smith's name is I have his case on the habeas corpus side.

BY MR. MADDEN:

Q. How do you know these 21-day assessments are even done?

A. Well, two things. One, let me just be -- I trust that we have good people that work for our agency, and we have some, but, quite frankly, they are not portrayed well and they are undeserving of that. They are great public servants.

Number two, we meet and talk, and they have to convince every week at these status briefings. They don't just report out, well, we observed the mental health status of Inmate Phillips. There are questions. We all ask questions: Okay, so does he appear to anticipate being executed? What's -- what's he talking about? Is he potentially suicidal? How do you know?

So that discussion. And then those reports are conveyed to us, to the incident command team, and we call it a 213.

Q. Let's turn to that. Let's turn to Defendants' Exhibit 21, page 145. I think it's -- yeah.

Do you --

A. 145?

Q. Yes, sir.

A. Okay. I wish we had that on the screen.

Q. Do you recognize that document?

A. Yeah. It's -- it is a written communication. Norm Robinson was what we call the CCI division leader, team leader, that works under the operations chief, which would at that time have been Mr. Morgan. And it is from him.

And this particular 213 discusses the medical task force examination. It identifies the physician that was involved in doing that, and the nurse as well. It talks about their qualifications. Talks about what they did. And it describes at this particular case that there were not unique factors that could impact the execution process from the medical perspective.

And one of the things that's been a tenet throughout this policy and throughout our commitment was to try to continue to gain, in anticipation of vein assessment, of whether or not the veins are palpable, whether or not the

veins -- we anticipate a problem with veins, vein access. And they talk about that. And that has to be hands-on. It can't be a visual check.

Q. What's attached -- what comes attached to that document?

A. Well, it's the actual notes. You know, we also require that this be -- you are probably leading me on this -- but we also require that all of the actions of the mental health team be documented in a mental health file, and the medical team in the medical file under notes.

And what you see here is a medical chart with a chronological documentation of that. You know, for example, December 20th, Beth Higginbotham identified the hands-on vein assessment. And that is in a fairly significant narrative of that activity.

Q. And how many pages is that, for Mr. McGuire in particular?

A. It appears to be seven pages, if I counted those correctly.

Q. Okay. And is this discussed during your unit meeting, your 214 meeting?

A. Well, it is discussed. Without getting -- the status briefings that are weekly, it is, in fact, discussed. And in this information, because the people are on the phone, are then translated to the team leader, the operations chief

in this case, the doer chief. And then those are relayed and specifically identified in the instructions to the staff on a 204 form.

We've got a lot of governmental forms here, I'm sorry.

Q. And what -- what are -- what is a 204 form?

A. It's basically an assignment description of the activities that are to be performed by specific -- by specific team members.

Q. Would you give the Court some examples of those that are done in the first operational period?

A. Well, in training, for example, the operations chief would identify: We're going to conduct training, and we're going to do this scenario and it's going to include this.

One of the most critical ones, quite frankly, happens to be done on the day of the execution, somewhere between 8:30 and 9, where the medical team is assembled, and they get a specific 204 that includes any anticipated issues, specific functions, specific responsibilities, and who's to carry those out. And everyone's assembled. So it's given on paper, but it's also given as part of a verbal piece to ensure if there is any questions, that those are raised.

But by the end -- by the end of this, by the final 204, we should be continuing to refine the expectations to get to a 204 on the day of the execution that is comprehensive and is going to result in an outcome that is desirable.

Q. If there is information out there that you don't know about, could you have -- could you be expected to speak about that at 214 meetings?

A. If I know about it?

Q. If you know about it. What if you don't know about it?

A. I don't think I can talk about it.

Q. Okay. So, for example, in the Dennis McGuire execution, there was some reports that came out following several of these unit meetings. Could you speak about those?

A. No, sir.

Q. Now, pursuant to policy, had Mr. McGuire's medical chart been reviewed and had he received three vein assessments the 24 hours leading up to the execution?

A. Yes. Those -- those were both completed. In fact, two on the day of his arrival at the Southern Ohio Correctional Facility, and a third one completed by a member of the medical team, which is, again, one of the refinements that we've made over the years.

Q. How do you know that?

A. One, they are documented. They are in the file. A person in the operations team has to review the documentation that's placed in the medical file, confirm that it's done. It then gets reported to the command center as documented, the time, and who did it on a checklist that

is posted around for my review before we ever proceed.

Q. Okay. Turn to document 29, 223. I mean Defendants' exhibit, excuse me.

THE COURT: Exhibit 29?

MR. MADDEN: Yes, sir.

BY MR. MADDEN:

Q. Do you recognize that document?

A. Is that page 219?

Q. 223, excuse me.

A. Oh, I'm sorry.

Yes.

Q. Do you recognize that document?

A. I do.

Q. And what is it?

A. It is a communication, a general message, a 213 that went to the operations chief from Nurse Clagg. Nurse Clagg is the healthcare administrator at the Southern Ohio Correctional Facility, who's not on the execution team, but it describes a review of the medical chart and other actions of the vein assessment that was completed. And it was documented on the medical chart.

And then it was placed -- we do, upon arrival at the Southern Ohio Correctional Facility, we start a timeline where chronologically all of the activities, all of the required activities, all of the activities in general,

visitors, et cetera, that come in are placed chronologically on a timeline.

So everyone -- in fact, that's the first thing, when I walk up in the morning and say hello to the warden and I walk into the conference room where that is -- that is a being demonstrated. So the timeline is an important part of that confirmation.

Q. What -- what is portrayed in that document? Did you already testify as to what was portrayed in that document?

A. I did. At 11:13, a medical evaluation and a first vein assessment was completed as noted. So this would have been the first of three vein assessments, two of which are done on the day of arrival.

Q. Would you turn to 227 in the same exhibit? Page.

A. Yes. This is another 213 that it says at 8:04 that evening, upon his arrival, the second vein assessment was completed by a Nurse Reiter with no issues or concerns noted. And it confirms that it was documented in the medical chart and on the timeline that I talked about.

Q. And is that provided to you before the execution begins?

A. Yes.

Q. Was the prior document we talked about presented to you before the execution begins?

A. Yes, in a confirmed briefing that we have,

approximately 9 o'clock on that morning.
Q. And are documents attached to that document and the document we previously talked about?
A. Yes.
Q. And what are those?
A. The following documents are the notes that were recorded regarding the medical assessment that was performed by the -- by the members. And it discusses the medical chart, it discusses blood pressure, and any other --
Q. Let's go on to page 231.
A. Yeah.
Q. What is that document?
A. It's a 213 communication from a member of the medical team that is part of the execution team that states -- and we've established that as a practice. It was important to me that people that were actually going to be involved in the execution process with the vein, gaining vein assessment, be part of the final vein assessment for a couple reasons. One, I want them to feel and to see.

And I don't have any research but it just seems to me that it's important for the inmate to see and to understand and to see who's involved. And, quite frankly, that's why I go in and talk to the inmate before this process starts.

But it documents that the third vein assessment was completed, actually by multiple team members here, with no

known issues. And then it was documented in the medical chart in the timeline.

Q. So you had all this information. You also received other 213s; is that right?

A. Yeah.

Q. About specific to other portions of the execution protocol?

A. Such as training and et cetera, yes.

Q. Okay. And after this confirmation briefing, before the McGuire execution, what did you do?

A. At the confirmation briefing?

Q. Yes. Oh, no, after the confirmation briefing. Excuse me.

A. After the confirmation briefing and after we had looked, and I want to say there is usually eight or ten of the critical team member, of the ICS members in the room, and I always have -- I always have questions. Just to question and confirm different things.

I indicated that it was -- we've achieved this. I asked, is there any -- are there any deviations or variations to non-core components of 01-COM-11, or do you even think there might -- are you aware of anything that might be defined as that that we need to talk about now.

Q. Okay. And --

A. And then we proceed -- we proceed --

Q. Let's talk specifically about the Dennis McGuire execution. You proceed from the confirmation briefing, and where do you go?

A. I first walk down and go into the visiting room, which is the station where media is there. And I usually make a --

Q. I hate to cut you off. We're on a time limit.

A. Okay. I'm sorry.

Q. Can you tell the Court what you saw during the Dennis McGuire execution?

A. Okay. So after those things, we made it to the death house. And I'm in the equipment room within inches of the drug administrators, looking directly at the gurney. Once the visitors were ordered okay to come over, I authorized the warden to read the death warrant to commence the execution, which is the commencing. It goes from the holding area, about 25 feet into the chamber.

Mr. McGuire was strapped down. Acknowledged the people in the room as he walked in. The curtain was closed. He was restrained.

Medical team went in. Created -- found two viable veinal accesses. As I recall there were two sticks in one arm and one in the other. And I could see from my perspective the drip or the flow was strong to indicate strong access.

The medical administrative team came out in the station equipment room. The curtain was opened. Warden Morgan offered the microphone to Dennis. He said some things, like -- I also can't remember that, what he said. Gave the microphone back. It was hung up. Mr. Morgan and Number 10 were stationed in the death house just beyond his head.

The signal was given. The combination of drugs was in one -- was together. The drugs started, and it's a tubing that goes from the equipment room. Quite frankly, about from here in the equipment room to where the podium starts is about the gurney where Mr. McGuire was laying.

As the drugs were going in, Mr. McGuire looked over, said -- what I think he said was "I love you." It was not -- that was not audible to me, but the mouth was pretty clear that he was. And leaned back down, and his head was kind of straight.

And what I saw for the first five to six minutes was no movement. I saw, you know, after the first minute or so, no movement.

Q. Let me ask to stop you right there. You have seen executions with pentobarbital and thiopental sodium, and you saw the McGuire execution with hydromorphone and midazolam. What was your reaction to his -- him becoming unconscious?

A. It was -- it was -- in my mind, it seemed quicker. I was concerned. I understand Dr. Waisel indicating that

first one to two minutes of concern, and I remember that testimony, the first one or two minutes. I didn't see that.

I saw in the pentobarbital -- and it's normal in the first couple of minutes, maybe three minutes or so, to continue to see some movement. And maybe up to four minutes. And movement, in some cases the head turning during that process, and then going to peace, with pentobarbital and thiopental sodium.

In this particular case, it seemed to actually -- Mr. McGuire went to a motionless state even quicker to me. And that's not a sign. I don't have a watch, but it seemed to me that that was the case. And I saw that for about five to six minutes into the execution.

And five to six minutes in -- and I'm looking right at like you are there, only laying back on a tilted, looking right at me. And, I mean, I look at these things. I continue to look at the IV access, the arms, to make sure that I don't see something wrong. I know other people more qualified are looking at it, but I'm looking at it.

And I'm looking, just like I looked at the pentobarbital and thiopental sodium, I looked at the chest raising, and I did, because it takes time.

After he was at peace and motionless, after I saw no chest moving at all, I saw the stomach first. I saw what looked like a knot in the stomach, and I was looking right

here (indicating). I could actually see a bit under his shirt, see -- it looked like a knot and his stomach was moving. I had not seen that before.

And then I saw his mouth open, and I heard audible sounds. I don't know whether it was like a snore or a snort, but it was a -- it was a gravelly, like you were asleep.

Q. Before all that started, before we -- we'll get back to that. Before that started, during that five minutes after the drugs were administered, did you see him make any kind of gesture to the visitors, the observers?

A. I did as the drugs were going in. As the drugs -- and maybe for the first minute, that there was an acknowledgment of the, you know, the visitors when he turned to say "I love you." And that as the drugs were going in.

But about a minute after that, which was quicker from my recollection than the pentobarbital, I did not see movement.

Q. Okay. Let's go back to when he started to have movement. You talked about the stomach protruding and the -- him opening --

A. The mouth opened.

Q. -- the mouth, making audible sounds. What else did you observe?

A. I heard that, and I didn't -- I didn't observe -- the

movements that I saw were his mouth and his stomach. And they continued to -- the stomach continued to knot up and relax, or spasm or that. And his mouth opened, and multiple, eight, ten groans -- or not groans. They were like snorts or snoring. That went on.

And, quite frankly, I had not seen that. Tom, I had not seen that before, and I was concerned.

So I wanted to talk to the medical team about what I was seeing and what they were seeing. So I convened a meeting, and this -- I don't know the time, because at that time I wasn't really worried about the clock. I was not looking at the clock, I was looking at Dennis.

We went out -- the equipment room, there is a little hallway right next to the equipment room right at the entry of the death house, so we were in this hallway. Not in the death house chamber, not in the death chamber and not in the equipment room, and we convened. I said, help me --

Q. Now, who was in this conversation?

A. The medical team members, Mr. Voorhies, Mr. Gray.

Q. Now, without speaking about any of the attorney-client conversations that you had with Mr. Gray, what was discussed?

A. I asked what are we seeing, to the medical team. And they were more reassuring. Director, he's not aware. We've seen this in our experience. I think we need to give him

more time for that medication, that dose drugs to work. And at that time I said, so what are you recommending? And they recommended a five-minute wait to see what happens; to see if these, these actions that they indicated -- and, quite frankly, they told me he's not here. He's not aware.

So we moved back into the equipment room. And I was stationed again right behind the drug administrator looking, and for the first minute or two that I walked back in I still saw that. I saw it slowing. I didn't see it as frequent. But as the clock -- I want to say the last three minutes of that five minutes, I saw no movement.

Q. And then what happened?

A. Well, at the end of the five minutes, I looked at -- I was touching, literally, I think I probably was touching the drug administrator physically. I said, what do you think? Because typically in those settings we would send the drug administrator in to do an assessment of heart sounds and breathing. And he says, I think -- I think we should go in. I said okay.

So the drug administrator went -- walked into the chamber and did what appeared to me to be -- to take longer to assess for breathing sounds and heart sounds. It seemed to me to be longer. I don't know if it was or not. I don't know.

He said something to the warden when he finished, who

was --

Q. Who's he?

THE COURT: The drug administrator.

THE WITNESS: The drug administrator.

THE COURT: Not to be identified by name.

THE WITNESS: Yes. And came back into the equipment room and said no heart sounds or no breathing sounds.

Then, consistent with the way we've done all of the other executions, we then called for the coroner to go in and do --

BY MR. MADDEN:

Q. Who is the coroner? Don't give his name. Just tell me --

A. It's the Scioto County. That's his name. I'm sorry.

Q. The coroner of Scioto County?

A. Coroner of Scioto County, yes -- to go in as we always do, and he performed an extensive check that again seemed to be at least -- I think it was longer.

And went to the warden, as is the practice, and the warden then announced the time of death.

Q. Let's move forward to January of 2015.

THE COURT: Let's break.

MR. MADDEN: Yes, sir.

THE COURT: For lunch and come back at 1:30.

MR. MADDEN: Yes, sir.

THE COURT: And resume.

MR. MADDEN: Yes, sir.

THE COURT: We're in recess.

(Luncheon recess at 12:01 p.m.)

A-F-T-E-R-N-O-O-N S-E-S-S-I-O-N 1:31 p.m.

THE COURT: Mr. Madden, you may resume your examination.

MR. MADDEN: Thank you, Your Honor.

BY MR. MADDEN:

Q. Director, if a three-drug -- you know, with this three-drug protocol being used in the upcoming executions, would you proceed with only one IV line established?

A. No.

Q. Could you explain that?

A. It seems important to me, three drugs require more syringes. The time frame is longer. It is, I think -- it is -- the possibility seems from my non-medical position to be greater to require a second -- a second vein access. And if we want to ensure -- unlike the -- I mean, certainly with thiopental sodium and pentobarbital, our goal was always to establish two sites.

With the three drug, it would be a requirement. I wouldn't proceed if we could only get one site. I just think that that kind of -- that safety net, to give the team

effective use of that. And, quite frankly, you know, the pace of the drug midazolam to work and other kinds of things, I don't want -- I don't want a lot of time lapse.

I just think that it's a reasonable safeguard. And, quite frankly, I know that I'm supported all the way up the chain with that decision.

MR. MADDEN: Your Honor, I have no further questions.

THE COURT: Recross?

MS. BARNHART: Just one moment, Your Honor.

RECROSS-EXAMINATION

BY MS. BARNHART:

Q. Director Mohr, could I direct your attention to Defendants' Exhibit 32, which I believe -- well, there's a cover page on page 248. That begins on page 249.

THE COURT: Defendants' 32, yes, ma'am?

MS. BARNHART: Yes, Your Honor.

BY MS. BARNHART:

Q. And you testified about this exhibit with Mr. Madden.

A. Yes.

THE COURT: 32?

MS. BARNHART: Yes, Your Honor. 32. It's the interdisciplinary progress notes of the medical assessment of Inmate McGuire.

THE COURT: I'm sorry.

MS. BARNHART: No problem.

THE COURT: My notes don't reflect that. The cover page reads "Psychology Report/Medical Report"?

MS. BARNHART: It does, Your Honor.

MR. MADDEN: It's in two different spots.

MS. BARNHART: I see.

MR. MADDEN: The spot we used was in the 213, which is Defendants' Exhibit 21.

THE COURT: 21 I have. That's perfectly all right if you want to use 32 --

MS. BARNHART: That's all right.

THE COURT: -- but I just wanted to make sure my notes weren't incorrect.

MS. BARNHART: Yes, we were just following along on the wrong exhibit page during Mr. Madden's examination.

BY MS. BARNHART:

Q. I want to find those same pages in Defendants' Exhibit 21 then that you looked at with Mr. Madden. And I think that starts on page 146 if I'm looking at it correctly.

THE COURT: 146 is certainly part of --

MS. BARNHART: Right.

THE COURT: -- Defendants' Exhibit 21.

MS. BARNHART: And then I will page forth to the one on January 15th.

I aplogize for the delay, Your Honor.

THE COURT: As long as you don't get a paper cut looking for the page we're okay.

MS. BARNHART: Thank you.

BY MS. BARNHART:

Q. All right. Let's just turn back to 32 then and use that one since I have that together.

Anyway, Director Mohr, Exhibit 32, starting on page 249, this is the medical assessment of Inmate McGuire before his execution, correct?

A. Hold on just a minute.

Q. No problem.

A. I'm flipping back.

Yes.

Q. Well, while we're looking for that, Director Mohr, I will ask you about a different topic.

With regards to changing the protocol after Dennis McGuire's execution, you were aware that there was a great deal of press coverage following Mr. McGuire's execution, correct?

A. Yes.

Q. And there were articles both locally in Columbus, regionally, statewide, nationally, internationally, correct?

A. I did not see an international one, but I would not -- I would assume that you are accurate.

Q. All right. And that coverage was not positive, right?

A. No.

Q. And you were concerned about what happened, concerned enough to order an investigation into the execution, correct?

MR. MADDEN: Objection, Your Honor. This goes beyond the scope of cross. I did not have time to get into this, the after investigation. They got into this on -- I agree that they got into this in direct, but I was not -- I didn't have enough time to get into it in cross.

MS. BARNHART: This relates to the protocol following McGuire.

MR. MADDEN: And I didn't --

THE COURT: I'm going to allow it.

MS. BARNHART: Thank you, Your Honor.

BY MS. BARNHART:

Q. And you had concerns about that negative press coverage, correct?

A. Not really.

Q. Well, that press coverage reflected poorly on DRC, correct?

A. Some of it did. Quite frankly, I have a tendency not to be concerned about press coverage.

Q. Okay.

A. Yeah.

Q. And that press coverage did not reflect well on you,

correct?

MR. MADDEN: Objection. Relevance.

THE COURT: Sustained.

BY MS. BARNHART:

Q. In any event, DRC revised its protocol following McGuire's execution, correct?

A. Yes.

Q. And increased the amount of midazolam in the protocol, correct?

MR. MADDEN: Judge, I did not get into any of this.

THE COURT: I understand, Mr. Madden, but it's Friday afternoon.

Go ahead.

THE WITNESS: Yes.

BY MS. BARNHART:

Q. And, in fact, ultimately DRC revised its protocol and eliminated midazolam, correct?

A. Yes.

Q. And that experience -- and those revisions were at least in part due to the experience of the McGuire execution, were they not?

A. Yes.

Q. Thank you. And now to return to the records.

All right. So turning to Defendants' Tab 21, page 153.

This is a document entitled "Medical Chart Review, McGuire Dennis."

THE COURT: Page number again, please?

MS. BARNHART: It's page 153 in the defendants' exhibit binder.

THE COURT: Thank you.

BY MS. BARNHART:

Q. And are you familiar with this document, Director Mohr?

A. Yes.

Q. And this is the 21-day medical review of Inmate McGuire before his execution. And you can page through it. I know it continues on for some pages.

A. Yes.

Q. So you've just -- so the record reflects, you have just been reviewing this document, paging through it?

A. Yes.

Q. Thank you. Does that document reflect anywhere Dennis McGuire having airway obstruction?

A. If you will point it to me it will save time as opposed to me re-reviewing this.

Q. Sure.

A. I didn't pick up on it as I was skimming through.

Q. I represent that it does not.

A. Okay.

Q. I don't believe it does. I just wanted to confirm that

for you.

A. Okay.

Q. And you, I believe, testified in your deposition that you attended the preliminary injunction hearing for Mr. McGuire prior to his execution, and you heard Dr. Waisel. That's correct, isn't it?

A. That's true.

Q. And at that -- you heard Dr. Waisel testify that Inmate McGuire did present a risk of airway obstruction; is that correct?

A. Yes.

Q. And, in fact, he talked about the acronym -- it's all capital letters -- STOP-BANG, various different elements to consider about an inmate that could present -- Dr. Waisel said that could present a risk of air hunger, correct?

A. Yes, he discussed air hunger.

Q. Okay. And Dr. Waisel was testifying at that hearing about the opinion in his written report or declaration that was submitted in the case, correct?

A. Yes.

Q. And that was submitted in the case prior to the hearing, correct?

A. I don't -- I don't know. I don't know when it was submitted.

Q. Okay. But you agree he was testifying at the hearing

about a report that he had previously submitted?

A. Yes.

Q. Okay. And if I represented to you that that was submitted on January 7th, 2014, you'd have no reason to dispute that, correct?

A. No.

Q. One moment please.

My counsel wishes that I clarify that when I said "correct" and you said "no," we just want the record to reflect that you have no reason to dispute that that report was filed on January 7th of 2014, prior to the preliminary injunction hearing?

MR. MADDEN: Objection. Based beyond the scope of his knowledge.

THE COURT: Overruled.

THE WITNESS: My answer is no.

BY MS. BARNHART:

Q. You have no reason to dispute it?

A. I thought that was your question.

Q. I thought so, too.

MR. BOHNERT: She said "is that correct" and you said "no." On the record it could be construed --

THE COURT: Not correct. Understood.

THE WITNESS: My response is the same.

MS. BARNHART: To everyone else in the courtroom

it was clear. It is now also clear to Mr. Bohnert.

MR. BOHNERT: I just wanted to make sure the record is clear.

THE COURT: Understood, sir.

MR. BOHNERT: Appellate clerks will have to read this, sir.

THE COURT: Exactly right.

MS. BARNHART: Nothing further.

THE COURT: Thank you.

Recross -- I mean redirect, anything further?

MR. MADDEN: Yes, sir.

THE COURT: All right.

REDIRECT EXAMINATION

BY MR. MADDEN:

Q. You talked about changing the policy after the McGuire execution. Did DRC increase the dosages based in part on the testimony of Dr. Waisel?

A. Yes.

Q. And what part of his testimony attributed to that decision?

A. I obviously can't replicate the technical discussion that he had, but when asked about the volume or the quantity of midazolam, there was a formula that I recall in his description that discussed the fact that the midazolam rate that we used, 10 milligrams, we would require at least three

times that, or 30 milligrams, to be satisfactory. That's in my recollection.

Q. And if I represent to you that McGuire execution was on the 14th, you would agree with that?

THE COURT: 14th?

MR. MADDEN: 16th.

THE COURT: Thank you.

MR. MADDEN: Excuse me.

THE WITNESS: I am going with the Judge on this one. Yes.

THE COURT: I don't -- like Mr. Bohnert, I'm obsessive about the record.

MR. MADDEN: Yes, sir.

THE COURT: You don't disagree that it was the 16th?

MR. MADDEN: I totally agree it was the 16th. I slipped. I apologize.

THE COURT: No, no.

BY MR. MADDEN:

Q. And you would agree with me that Dr. Waisel testified on January 7th; is that right?

A. I would not have reason -- it was approximately that time. I can't remember the date.

Q. And was a 21-day medical assessment -- what is your recollection of when that was performed for the Dennis

McGuire execution?

A. It was performed either 21 or 22, 23 days before. It achieved the 21 -- it achieved the 21-day requirement.

MR. MADDEN: Thank you, Your Honor. I have no further questions.

THE COURT: All right. Director Mohr, you may step down.

Plaintiffs' next witness.

MS. BARNHART: At this time, Your Honor --

MR. BOHNERT: Your Honor, I believe at this time we were going to try to accommodate the defendants and let them take one of their experts out of order.

THE COURT: All right.

MS. WRIGHT: We need to know, Your Honor, about our rebuttal and whether it will move into Monday.

MR. BOHNERT: The question, Your Honor, is about the allocation of time and whether rebuttal time is allocated such that it can be used on Monday, given the need to try to accommodate the witnesses here today.

MS. BARNHART: I think an additional question is, based on the parties' calculations -- it's almost 2 o'clock now. The plaintiffs have three and a half hours for rebuttal, the defendants have some time left for their case in chief to present their expert, and so we're -- we don't think that's going to get done all today. So we are just

trying to figure out what the Court -- we've checked with Dr. Bergese, and he is able to come back on Monday, so we could tell him to leave now so that he could come back on Monday if needed.

THE COURT: Kelly, what does your time sheet show for today so far?

By my calculation, the plaintiffs have 113 minutes left, and the defendants have 104 minutes left.

MS. BARNHART: For their case in chief, Your Honor?

THE COURT: No, total. We added up the time. When we reallocated the time, what we did was add up the total amount of time available. So if you look at the amended time allocation order, we were supposed to be in the plaintiffs' rebuttal case by now, which we are not. And to have allocated three and a half hours for that. Three and a half hours is 110 minutes. You have far less than that left, total.

Defendants' case in chief was to have commenced yesterday and consume five and a half hours -- six and a half hours, and to have come to a total of nine and a half hours by noon today. That hasn't happened.

So we need to discuss what we do with the time we have left and how we allocate it.

So I am going to give folks ten minutes to talk about

that among themselves and then tell me what you want to do.

MR. MADDEN: All of us together?

THE COURT: Well, separately caucusing first, and then together, yes.

MS. BARNHART: Your Honor, just to be clear, there is still two hours on Monday that had been taken out of plaintiffs' case in chief.

THE COURT: Right.

MS. BARNHART: Okay. We're just trying to make sure our totals are accurate.

MR. SWEENEY: Your Honor, how much time did you say we used today? I'm sorry.

THE COURT: Read it out, Kelly.

THE COURTROOM DEPUTY: 106.

MR. SWEENEY: 106 today?

THE COURT: Yes.

MR. SWEENEY: Is that based on yesterday -- yesterday we were, based on my calculation, riding with Kelly and listening to her throughout the week, 557 is where we were after last night. If we add another 106, we're at 670, roughly, and we are supposed to have 780.

THE COURTROOM DEPUTY: We just went over yesterday. We didn't do a total of the week.

MR. SWEENEY: But I did. I just kept doing it.

THE COURT: What do you have?

MR. SWEENEY: I have it. I have been trying to have. I had at the end of the day yesterday of 557.

THE COURT: Right.

MR. SWEENEY: For us, out of 780.

THE COURT: Right.

MR. SWEENEY: The 780, Your Honor was not counting rebutting, because the 780 time was the case in chief time that you allocated.

Part of the issue is some of the time it wouldn't add up at the end of the day to a full day.

THE COURT: You are right. You are right.

MR. SWEENEY: That's why.

THE COURT: You are right. Plaintiffs' case in chief was allocated 4-1/2, plus 6-1/2, which is 11, plus 2 hours on January the 9th, which would be 13. That's your total of 780.

MR. SWEENEY: That's the 780, correct, Your Honor.

MR. BOHNERT: And then would there not be additional rebuttal time that was broken out separate?

MR. SWEENEY: Yes. I wasn't counting that. Rebuttal I am treating different. The 780 -- so that's how I got 557 last night, give or take, plus today, would bring us, I thought -- I thought by now we were about at 670 maybe.

THE COURT: 663.

MR. SWEENEY: Yeah, and we still had to do Mr. Buffington's cross, so I thought we would probably have some time left over today, and we'd still have enough time for our witnesses on Monday. And then still have our rebuttal time.

THE COURT: Two hours for the witnesses on Monday and then the rebuttal time.

MR. SWEENEY: Right. That's what we were thinking.

THE COURT: Except the rebuttal time was supposed to be today.

MR. SWEENEY: I know. That was kind of what was confusing about how the time was getting used and maybe just disappearing.

THE COURT: Disappearing into recesses.

MR. SWEENEY: Yeah, that kind of stuff probably.

MS. WOOD: And also we called Dr. Antognini out of order, didn't we?

MR. MADDEN: Not really. We called him Thursday morning.

THE COURTROOM DEPUTY: It's all the same.

MS. BARNHART: The issue is that the total amount of time spent in the courtroom for the week is smaller than the total amount of time allocated to the parties in the court.

THE COURT: 120, not 106, right?

THE COURTROOM DEPUTY: All day, because that's this afternoon.

MR. SWEENEY: We're still at about the same ballpark. And so the thought was if we had maybe Mr. Buffington, or Dr. Buffington, it would probably be about an hour and a half would be total, was kind of our guess. They'd probably take about an hour. I don't think they have much more time left than an hour.

MS. BARNHART: Right. They have 104 minutes left.

MR. SWEENEY: And we'd do a cross, and then we'd probably get to around 3:30, and perhaps would get in at least two hours of that time if His Honor would be willing to go to 5:30.

THE COURT: I'm not.

MR. SWEENEY: No, okay. Well, 90 minutes.

THE COURT: Somebody else has dictated what I am going to do at 5:30.

MR. MADDEN: We have 104 minutes in our case in chief.

THE COURT: Right. Is it your intention to call Dr. Buffington now?

MR. MADDEN: Yes, sir.

THE COURT: All right.

MR. MADDEN: Yeah, he's got a plane to catch.

THE COURT: Call Dr. Buffington.

MS. WERNEKE: Your Honor, can I just bring in a housekeeping matter?

THE COURT: Sure.

MS. WERNEKE: We talked about designating the depositions that we wanted to introduce, and I have put them on a flash drive as you had suggested. And I have given to Ms. Lowe a copy of it, and I have two copies for you.

THE COURT: I don't want it from you. I want it from when Ms. Lowe is finished with her designations. I want that copy -- I want a copy of that.

MS. WERNEKE: Okay. You want her to make the designation on here?

THE COURT: Right.

MR. BOHNERT: So does she need to give her all three, all three so that whatever goes to the Court.

MS. WERNEKE: Oh. So I wanted to make sure what was on the record. What's on the record is the depositions, and then we did a pleading that's a notice that says exactly the pages that -- the PageID numbers of the whole deposition but then what we've highlighted.

And then we've also put in there the prior testimony of various proceedings that have happened in the course of this case that we find irrelevant as well, and with a notice that was courtesy filed on --

The other thing we have on the flash drive, Your Honor, is all the prior testimony of the various depositions and court hearings and things that have gone on over the years in this case, the history of this case, even back when it was Cooey that we think are relevant to the issues before the Court.

We filed a notice on December the 27th of those transcripts that we've designated that we think are relevant, and we've just added those to the flash drive just for the Court's convenience and the parties' convenience.

THE COURT: All right.

MS. WOOD: Your Honor, if I may.

THE COURT: Go ahead.

MS. WOOD: I'm sorry to press the issue, but we really need a decision on allowing to do a rebuttal because we have Dr. Bergese here in the courtroom, who has also been here for several days, and if we are able to call him on Monday, then we, frankly, need to request additional funds from our boss because we are on a federal budget and it is a lengthy process. So if we are letting him go today -- we'd like to be able to let him go and then to know what to do for Monday.

THE COURT: Let's pay attention to budget rather than the time allocation done before. Let's get Dr. Buffington done, and then if Dr. Bergese needs to be

heard in rebuttal, we will hear him today so that we haven't embarrassed the budget. Is that what you are asking?

MS. WOOD: But Dr. Stevens has to leave.

THE COURT: Dr. Stevens has to leave.

MS. BARNHART: We'd like to let Dr. Bergese leave now, turn off the meter, go home, and then come back on Monday. And if that's acceptable, we will release him to do that.

THE COURT: Ms. Lowe? Any objection?

MS. LOWE: So I just want to -- I'm sorry.

THE COURT: They want to release Dr. Bergese to go home now and come back on Monday.

MS. LOWE: For their rebuttal case --

THE COURT: Right.

MS. LOWE: -- on Monday so that we would complete -- I don't think we have an objection to that.

THE COURT: Good.

MS. LOWE: Unless Mr. Wille disagrees since I do report to him.

MR. WILLE: Well, in this situation, actually Mr. Madden is -- he's the lead attorney.

One moment, Your Honor. I will only be a moment.

THE COURT: All right.

MR. WILLE: No objection, Your Honor.

THE COURT: Very good. All right. We are ready

to proceed.

DANIEL BUFFINGTON, DEFENDANTS' WITNESS, SWORN

THE COURT: Sir, you have been sworn. Would you state your name and spell your last name for the record.

THE WITNESS: Yes, sir, Dr. Daniel Buffington, B-U-F-F-I-N-G-T-O-N.

THE COURT: And what is your employment, sir?

THE WITNESS: I am on faculty at the University of South Florida, College of Medicine and Pharmacy. I also have a private practice, specialty practice called Clinical Pharmacology Services. And I also work for the United States government for Department of Health and Human Services with Medicare and the Healthcare Reform team.

THE COURT: Thank you. Mr. Wille, your witness.

MR. WILLE: Thank you, Your Honor.

DIRECT EXAMINATION

BY MR. WILLE:

Q. Dr. Buffington, is it proper for me to refer to you as a clinical pharmacology?

A. That's correct.

Q. Could you just tell me a little bit about your background? Recognizing that you've submitted a curriculum vitae, but could you just describe a little bit your education, your background, your training, and your experience?

A. Yes, sir. My undergraduate training was in biology and biochemistry at the University of South Florida. I did a Doctorate of Pharmacy degree, which is a pharmacology-based degree, at Mercer University in Atlanta, Georgia.

Following that, I did a residency and clinical pharmacology fellowship at Emory University in Indiana. Subsequent to that, completed an MDA with a healthcare focus.

Practice, as I just stated, includes academic endeavors, teaching medical students, practicing physicians of various specialties -- pharmacists, nursing students.

I have a clinical practice where patients are either referred to our practice for issues related to high-risk medications or chronic drug therapies, drug interactions, pharmacogenetic testing. Also provide consultative support to physicians of various specialties, health plans, the federal government, and law enforcement on forensic issues.

Q. Doctor, could you just tell us a little bit, give us a definition of pharmacology.

A. Sure. Pharmacology is the study of medications and natural substances, so it could be synthetic or natural; and what pharmacologic effects they have on the body to guide or direct treatment or therapy.

But embodied in that is also toxicology. So we have to understand the positive attributes as well as the negative

attributes of pharmacologic substances. And that can be applied in a variety of ways. So on an inpatient basis, that may be a service directly guiding medical decision-making and prescribing and patient monitoring for safety. On an outpatient basis, it could be private practice or consultative support for other practitioners.

Q. You mentioned toxicology. That's a term we often hear. Could you just tell us, describe the difference between or the -- how toxicology is related to pharmacology?

A. Sure. So it is the study of the negative attributes, so things that are either the harms, the complications, the adverse side effects, and understanding not only how they occur but how to manage them in practice settings.

Q. You've -- you heard Dr. Stevens testify. Could you just tell us briefly -- you can compare and contrast your training, education, and experience with that of Dr. Stevens?

A. Sure. From reviewing his CV and hearing the testimony, it sounds like academically and profession roles are very similar.

I think the difference between a PharmD is that a Doctor of Pharmacy would be the highest clinical application of pharmacology degree, where a Ph.D. would be a higher degree with regards to research design.

Q. Have you in the past been requested to testify as an

expert by attorneys or by courts?

A. Yes, sir, routinely.

Q. And have you been asked to testify as an expert in cases involving the states' lethal injection protocols?

A. Yes, sir, I have.

Q. Could you just very briefly summarize the type and the cases that you have done such expert testimony?

A. Yes, sir. There is cases in Alabama, *Grayson versus Dunn*. There -- I've had inquiries from our states with just technical questions. I have also testified for Virginia in a recent case for them as well.

MR. WILLE: Your Honor, I'd like to have the witness take a look at -- or have at his ability to observe Prosecution Exhibit 93, which I believe is -- or prosecution, excuse me -- Defendants' Exhibit 93, which I believe is his expert report, which includes his curriculum vitae.

THE COURT: The record will reflect the witness has been handed the appropriate evidence binder.

MR. WILLE: It should be Exhibit 93.

THE COURT: I have it.

THE WITNESS: Yes, sir.

BY MR. WILLE:

Q. Just to have that for your perusal. It does have your curriculum vitae attached, I believe?

A. Yes, sir, it is.

Q. Does that curriculum vitae accurately describe your professional training and experience?

A. It does.

Q. Tell us a little bit about what a clinical toxicologist does.

A. So in the course of my practice, I have patients who are referred to our practice where we provide a thorough drug regimen analysis, identifying if there's needs for therapeutic monitoring, whether that's blood levels or other types of genetic testing that look for potential variances in one individual's ability to metabolize certain medications versus another. If there is adverse side effects occurring, we are able to identify if one or multiple of those medications may be the causative agent for that. So it's very much a detective or investigative role for primary care or specialists as to what the issues may be.

With toxicology, it may also involve doing some type of ongoing monitoring that looks at patient safety. So many medications, we have to do blood level testing to be sure that the patients are staying within a safe therapeutic range.

Q. Do you provide services directly to anesthesiologists?

A. Absolutely. I have actually had anesthesiologists as

partners in my practice. And in addition, I do clinical research. I have done multiple consults that are at hospitals in the emergency room, that are also -- I am sorry -- in the operating room. Also clinical trials that we have done in the operating suite.

So, yes, I get consultations from anesthesiologists with questions about high-risk patients. It may be an issue about their regular medications and a potential interaction with the anesthesia. It may be about patients who are high risk with anesthesia, who we are looking at designing the appropriate regimen for those patients.

Q. Have you actually been in an operating room?

A. Multiple times.

Q. And do you -- not only just to anesthesiologists, but do you also give consulting services to physicians, other types of physicians?

A. That's correct, other specialties as well.

MR. WILLE: Your Honor, at this time I would like to offer Dr. Buffington as an expert in toxicology and pharmacology.

MR. KING: Your Honor, we do object. From what I heard, and based on his CV, Dr. Buffington is a pharmacist. He's not a pharmacologist. And that's a distinction that the case law has recognized under -- in evaluating the qualifications of an expert, that a pharmacist is not a

pharmacologist.

A pharmacologist is somebody who holds a degree in pharmacology. Dr. Buffington does not hold one. He does not hold a degree in pharmacology. He does not hold a degree in toxicology. He holds a degree in pharmacy.

And I'll just -- I can give you the case law.

THE COURT: Please do.

MR. KING: Well, I'll start off, *Newton versus Roche Labs*, 243 F.Supp.2d, 672, Western District of Texas, 2002 decision.

Devito versus SmithKline Beecham, 2004, U.S. Dist. LEXIS, 27374, Northern District of New York, 2004.

Dellinger versus Pfizer, 2005, U.S. Dist, D-I-S-T, LEXIS, 96355, the Western Division of North Carolina, 2006.

Wehling versus Sandoz Pharmaceuticals Corporation, 1998, U.S. at LEXIS 38866, a Fourth Circuit decision from 1998.

Each of those decisions say a pharmacist, someone with a degree in pharmacy, is not qualified to testify about pharmacology.

I understand that he holds himself out as a clinical pharmacologist. And, in fact, in that Texas decision, a very similar circumstance, where a pharmacist held himself out as a pharmacologist. The court said no can do. You have to have a degree in pharmacology in order to testify as

a pharmacologist. The disciplines are distinct.

And so we do not believe that Dr. Buffington is qualified to testify as either a pharmacologist or a toxicologist. He can testify as a pharmacist.

And I just want to give the case law -- I'll give you a quote from the North Carolina decision, the *Dellinger versus Pfizer*, and it's a theme that you see and the definitions that you see throughout the cases.

It says, "Pharmacology can be described as the study of the effect of drugs on living organisms, while pharmacy, on the other hand, can be described as the profession of reading prescription labels and disbursing drugs."

And then the court said, in regard to that expert, "However, Keys is not a doctor and has a degree in pharmacy, not pharmacology. Without a degree in pharmacology, Keys is not qualified to render a relevant or reliable pharmacological opinion."

THE COURT: Pharmacological opinion, right?

MR. KING: Correct.

MR. WILLE: Your Honor, may I address this?

THE COURT: Please.

MR. WILLE: Your Honor, the test for an expert witness is whether the witness has specialized knowledge which will assist the finder of fact in rendering a decision on a relevant factual question.

The doctor's curriculum vitae shows that he has specialized training in pharmacology with specific training in terms of pharmacological issues with respect to the prescription of medications and the use of medications. We would submit, Your Honor, that because he can demonstrate specialized knowledge, what you've described formally as his degree is not the controlling question, with all due respect to the decisions of other courts, which I have not seen the particular circumstances in those cases, but it is clear here that the doctor has specialized knowledge and training which would assist the Court in resolving factual questions before it.

MR. KING: Your Honor, I would just respond, he does have specialized knowledge in pharmacy, not pharmacology. He doesn't have a degree, and I have heard nothing about any training, any advanced training in pharmacology.

THE WITNESS: Fellowship.

MR. KING: I don't see it on his CV.

MR. MADDEN: Your Honor --

MR. KING: I also don't believe the case law study -- I understood he just murmured the word "fellowship." He does have, it looks like, on his resume a research fellowship that he indicates he took for one year at Emory. I still don't believe the case law would allow

him to be qualified as a pharmacologist.

You know, bringing in expert testimony, as this court knows in federal court, there is a fairly rigorous review of the expert's qualifications. I am sure, you know, he holds himself out as a pharmacologist. He has a business with the term "pharmacological services" in it. That's fine. But for purposes of these proceedings, he is not a pharmacologist.

MR. WILLE: Your Honor --

THE COURT: When did the plaintiffs receive Dr. Buffington's report? Date?

MR. MADDEN: Several weeks ago.

THE COURT: Date? When did you receive his report?

MR. KING: Well, I think the original version was probably about two weeks ago. Whatever the date -- whatever the deadline was, I believe.

MR. MADDEN: December 21st. And also you had said something, Judge, at the beginning of this: Do we need to have a *Daubert* hearing? And then later on they get the report. No motion before this court questioning his authority so that a *Daubert* hearing could be conducted, and that Mr. Wille wouldn't be sandbagged with these cases and not being able to answer them.

THE COURT: We'll take a recess. We'll read the

case law. This time is chargeable to the plaintiffs.

THE COURTROOM DEPUTY: All rise. This court stands in recess.

(Recess from 2:16 p.m. until 2:19 p.m.)

THE COURT: Please, be comfortable.

We are waiting on Mr. Madden?

Okay. Go ahead. Is Mr. Madden coming?

Please, be comfortable.

The Court has not read the cases cited by plaintiffs' counsel. The Court has decided that plaintiff has waived the objection by failing to file a motion in limine by the deadline set by the Court.

The witness is found to be qualified as an expert.

Mr. Wille, you may resume your examination.

Whether it's *Daubert* or *Kuhmo Tire*, I think there is adequate foundation laid.

BY MR. WILLE:

Q. Dr. Buffington, have you had occasion to act or provide expert consultation services to the federal government?

A. Yes, sir, I'm currently and have been for the last three years a specialty consultant on clinical pharmacology and medication safety with the Department of Health and Human Services to both the Medicare's Innovation Center, which is the safety arm and research arm of the Healthcare Reform Initiative; and also with the FDA.

Q. Do you have knowledge as to how drugs are approved for sale and use in the United States by the Food and Drug Administration?

A. Yes. Throughout my entire career, I've served as a principal investigator on the clinical research trials, and that's working directly with the FDA sanction review, and assisting in the review process.

Q. Now, you have been asked to render expert opinions with respect to midazolam, one of the drugs used in Ohio's execution procedures. Could you just tell us a little bit about, just very briefly, what midazolam is, the type of drug it's categorized as, some of its uses?

A. Yes, sir. It is a benzodiazepine, which is a central nervous system depressant agent. It is -- as we look at classes of medications, the benzodiazepines have multiples. Some have -- each of them have different characteristics. Some are much longer in duration and effect. Some have unique advantages for certain types of conditions, whether that's treating seizures or treating anxiety or sedation. And also they vary in the length and duration of their effects.

Q. You are familiar with the term "drug label" or "package insert," those terms?

A. Absolutely.

Q. And could you just review briefly what -- some of the

things that midazolam -- the package insert with respect to midazolam includes?

A. Yes, sir. So I would refer to those as FDA-approved indications. Just for the Court's understanding, that's not a limit of what the medication can be used for. It's what the manufacturer provided supporting data that the FDA approves and that manufacturer can then market that product for. So it is a guideline for that information.

There is multiple different indications, therapeutic indications, that are on the FDA-approved package insert for midazolam, and they include the induction and maintenance anesthesia; they include sedation for patients who are intubated or ventilated; they include the treatment of different types of seizures.

Q. You may have mentioned this briefly before, but what does the FDA do? What kind of procedures do they use to -- before they make those indications on a package insert?

A. Well, the FDA itself doesn't do the research. The pharmaceutical manufacturer or independent groups, if a product is developed in that pathway, have to produce very specific guidelines of information. The FDA will assemble therapeutic panels, experts within -- if it's an antibiotic, they'd be experts in infections disease or anti -- infectants. If it's a neurology product, those experts. They would then review that product and look for both

therapeutic effectiveness, or efficacious, and they would also look for complications and adverse side effects and toxicities and the like.

And evaluate that information to give the FDA-approved indication. So the FDA could take information for ten indications and only accept five.

Q. Did you --

A. And -- I'm sorry.

Q. Did you mention that the approved application for midazolam includes induction of anesthesia?

A. It does.

Q. Now, in speaking of anesthesia, could you just tell us a little bit about your -- the way you used the terms "sedation," "unconsciousness," "general anesthesia," could you just review basically what you are going to -- what you mean when you use those terms?

A. Sure. Well, the term "anesthesia" is a broad term, and it could be medications that are topical or local effect to block a specific nerve, it could be something that is broader or regional, and it could be something that is administered for global effect in the body.

So we've seen testimony in graphs and charts in this case already that I think do an excellent job, and that anesthesia is a continuum of sedation. It starts at a low level, minimal, then moderate, then deep sedation, and in

its lowest level is general anesthesia.

Q. Are you familiar with the term "noxious stimuli"?

A. Yes. It's a very broad term that is for something that is offensive or disturbing or painful to an individual. It doesn't mean and shouldn't be interpreted to mean it's one thing. So that could be something of a verbal nature. It could be something that's shaking the patient to alert them. It could be something of a painful nature.

The degree or intensity of noxious stimuli varies as well. So it's up to the practitioner, the type of procedure, the practice setting, the types of medications that are used to gauge what level of noxious, to create a stimuli, to gauge the patients' level of sedation.

Q. Is it possible, Doctor, that a drug can render a patient sufficiently sedated as to be unaware of a noxious stimuli and yet not reach what might be called a level of general anesthesia?

A. Absolutely. That's what the minimal, moderate, and deep sedation actually is. And the definitions even in *Miller's* acknowledge that when we talk about a stimulus, we're really talking about not the term "analgesia" or "pain." Pain is a perception or an emotion or an emotional response to a stimulus.

So what the correct terms to use would be "nociception." Nociception is an understanding of what a

stimulus, whether it's a pinprick, a pinch, a pressure, a temperature is applied, and that signal then transponding through the nervous system to reach the brain to then be perceived.

So to say noxious stimuli can mean many different things.

Q. Now, let's -- with respect to midazolam, is there a relationship between the degree of sedation that midazolam can produce and the dosage amount?

A. Absolutely. The --

MR. KING: Excuse me, Your Honor. Objection. Foundation. Can we learn more about his experience with midazolam?

THE COURT: Yes.

BY MR. WILLE:

Q. Tell us a little bit about your experience with midazolam.

A. Yes, sir. So given the age of this particular medication in my career span, I've been able to see this product used in a variety of practice settings -- it's been out for several years -- and that's in both office space, surgical centers, ambulatory surgery centers, plastic surgery suites, all the way through operating rooms and OR suites.

Q. And based on your education, have you received

information, instruction with respect to the effects of midazolam?

A. Absolutely. And provided expert testimony to various state boards of medicine, and teach on the topic routinely.

Q. And perhaps I should have asked this when -- lay this foundational question, but does midazolam -- it produces sedation?

A. It does, and we have multiple publications to help us to understand. That is actually -- it is less used for the other indications that we see the benzodiazepines used because it has significant sedation and short effect that it's -- because it's dose dependent, it can be used strategically in very basic procedures. It can be used at higher doses for more advanced procedures. It can be used in combination. We typically use it in combination with other medications in the operating suite for general induction and maintenance of general anesthesia for certain procedures. And it can be used in very high doses for patients in a controlled setting because of the potential for respiratory depression for treatment of life-threatening seizures.

Q. I think you have answered my previous question, but, again, is there a relationship with respect to midazolam between the dosage amount and its effects?

A. No question. And it is -- it is in all references

regarded as a dose-dependent effect, which means a smaller dose will have an effect; a larger dose will render a larger effect; a much larger does will render a much larger effect.

Q. And, again, also --

THE COURT: Hold.

BY MR. WILLE:

Q. And then, again, Doctor, consistent to what you just said, I take it your opinion is midazolam is capable of rendering a relatively deep level of sedation?

A. Absolutely, at larger doses. Even at therapeutic doses we have evidence through scientific studies that midazolam is capable of producing BIS levels, which is a common metric or measurement for EEGs, that is a correlate with levels of sedation; that it's able to produce levels equivalent to BIS levels of 40 to 60, and even at doses from 5 to 20 milligrams.

Q. And that's -- those studies you refer to, do those include a study entitled or roughly referred to as the Liu study?

A. The Liu, the Glass, the Bulock.

Q. And, again, just to recap, those -- you point to those studies to indicate the evidence that midazolam can be used to produce a deep level of sedation?

A. Yes, sir. We clearly understand that midazolam is pharmacologically capable of inducing deep respiratory

depression and sedation.

Q. Now, Doctor, we've heard -- you've heard testimony, and we've heard a number of references to the term "ceiling effect." Can you tell us what, in your -- in your knowledge or in your opinion, what that term refers to?

A. Yes, sir. During the earlier testimony, what I heard was a comparison of one drug to another. That would be a difference in potency of one drug to another, not a ceiling effect.

Ceiling effect would be in the same medication, is there a maximum effect that can be achieved regardless of a dose, an increased dose administered, and we clearly have no literature, no scientific study to support that premise for midazolam.

Q. Doctor, we've heard -- we've heard testimony that there is a ceiling effect with respect to midazolam. Could you explain -- I mean, elaborate on what you just testified to. Why do you say that there is not sufficient data to show that midazolam has a ceiling effect or what that effect might be?

A. Well, as a correction, you did not hear that it has a ceiling effect; you heard there is a theory that it has a ceiling effect.

What we know in a dose-dependent increase is that midazolam produces small effects at low doses and increasing

effects of depths of sedation and depth in intensity of respiratory depression. If there were a ceiling dose to be defined or an outcome, it would be death because we know that midazolam is considered lethal at large doses.

So, therefore, if -- there is not a concept here -- there is only a concept being discussed, and it is not studied. It was something that was done with animal data.

The FDA is very clear, it is inappropriate to attempt to opine human pharmacologic effect from animal or laboratory data that hasn't been tested or validated in humans.

We do not see a ceiling effect in humans, and I don't discount the academic endeavors that we heard to look at, and I encourage that. However, that data was from a receptor taken out of the human body, placed into a petri dish in the presence of a chemical. Dr. Stevens himself stated that, and acknowledged that that does not reflect the term that was used, "pharmacokinetics." And that's a very important term, something very important to he and I both, and that is, that's the effects when you have the drug in the body.

So it's an academic theory to test does the presence of midazolam have an impact with the presence of GABA at the receptor level. It is interesting. However, we have never seen a ceiling. And what we actually see is a capacity to

produce deep sedation to the equivalent level of general anesthesia and the capacity to render death.

Q. Now, Doctor, to your knowledge, or do you know that midazolam is used as part of Ohio's lethal injection protocol?

A. Yes, I have reviewed the protocol.

Q. And do you know what dosage level Ohio used with respect to midazolam?

A. Yes, sir. It's 500 milligrams administered in two separate syringes, 250 milligrams apiece, with a conscious check and the ability to administer another round of 500.

Q. Now, in your expert opinion, Doctor, if midazolam at the dosage level called for in Ohio's execution protocol is effectively administered, will it render a person sufficiently insensate to the noxious stimuli that may result from the administration of the second and third drugs?

A. That is correct.

Q. And you are -- you are familiar with, or you know what the second and third drugs are; is that right?

A. Yes, rocuronium and potassium chloride.

Q. And, again, it's your expert opinion, to a reasonable degree of scientific certainty, that the amount of midazolam, if successfully administered in Ohio's execution protocol, would sedate a person sufficiently to render that

person unaware of the noxious stimuli produced by the second and third drugs?

A. Yes, sir. And that's sedation balanced with its other key attribute, and that's its amnestic effect. And with that, pain is not the stimulus. The stimulus, whether it's a pinprick, a pinch, those are nociceptive signals. The brain has to have the capacity to understand, and then each of us react differently to pain.

I have seen no evidence in this case that's attempted to discern or graduate, grade, any presence of pain from the second or third. While it's obviously possible if misadministered, there is no assumption that you would, in fact, have pain from the second and third, or that any such nociceptive effect would have the patient sensitive or sensate to that pain.

Even if there is an autonomic response. And we heard testimony that autonomic response could be a muscle twitch, a change in blood pressure, a change in heart rate, perspiration, making a guttural sound. There are multiple signals that a patient may be in a depth of anesthesia, a depth of sedation, and be emerging, but emerging is not a light switch.

Q. Let me -- let me ask you --

THE COURT: Hold on just a second. Would you please spell the word "nociceptive" for the record.

THE WITNESS: Yes, sir. N-O-C-I-C-E-P-T-I-V-E.

THE COURT: Thank you.

THE WITNESS: And we also refer to nociception as a process.

BY MR. WILLE:

Q. Doctor, let me follow that up. Do you recall the slide from the anesthesia text *Miller's* that depicted the signs -- depicting the signs of emerging from anesthesia?

A. Yes. But that -- that table would also be --

MR. KING: Objection, Your Honor. I understand that he's been qualified as a clinical pharmacologist. He has not been qualified as an anesthesiologist, and he's being asked about an anesthesiology text.

MR. WILLE: Your Honor, again, Dr. Buffington, in his expertise, has testified that he consults with anesthesiologists. He provides them consulting advice. He's been in the operating room with anesthesiologists. He has extensive training in pharmacology. As a matter of fact, his vitae indicates that he has not simply an undergraduate degree, but also a graduate training in experience in pharmacology.

Again, I would submit, Your Honor, that he has more than enough expertise to assist this Court with the issues before it.

THE COURT: I'll allow the testimony.

THE WITNESS: Thank you, Your Honor.

Could you repeat the question?

BY MR. WILLE:

Q. Yes. If you recall at this hearing, there was a slide from the anesthetic textbook depicting the stages of emergence. Now, you also mentioned that emergence is not like a switch where you are unconscious in one moment and then you are conscious the next moment.

A. That's correct.

Q. Now, is it possible, in your opinion, that when a patient is emerging from anesthesia, that there could be a point where the level of sedation and effect is lesser but, nevertheless, the patient is still not aware of some noxious stimuli?

A. Absolutely.

MR. KING: Objection, Your Honor.

THE COURT: Sustained. Form of the question.

BY MR. WILLE:

Q. Tell us a little bit, Doctor, about those stages of coming out of the anesthesia and the signs that we saw. Tell us about how that process works.

MR. KING: Your Honor, objection. I do think this is outside the scope of his expertise. I think this is more appropriate for an anesthesiologist to be testifying about.

THE COURT: Maybe so.

Can you point to some place in his report where he's talked about this, Mr. Wille?

MR. WILLE: Your Honor, he said that, in his report, he's indicated that he consults with anesthesiologists and provides them with his assistance.

THE COURT: Objection sustained.

MR. MADDEN: Judge, may I be heard on that part?

THE COURT: Yes, sir.

MR. MADDEN: The reason why we brought the experts in here and had them watch each other is because, you know, so they could comment on each other's testimony. Their -- I am sure that their experts are going to come here later on this afternoon and have opinions about what our experts say that may not be in their reports, and it would -- that wouldn't be fair if their experts could comment about things in my expert's report but my expert could not do the same.

MR. KING: Your Honor, I don't think that's the case. They did file -- Dr. Antognini filed a supplemental report. They had that opportunity if they believed that this testimony was responsive to the expert reports of our experts, so I would disagree with Mr. Madden.

MR. WILLE: May I just address this, too, Your Honor? Yes, Your Honor, granted there is going to -- there are situations where something is not spelled out in an expert report, but, nevertheless, it is clear from what is

in the expert report, and particularly with respect to the overall opinions that are being issued, that it does -- it would provide fair notice that this witness was prepared to testify with respect to midazolam and its relationship to anesthesiology.

MR. MADDEN: And their expert didn't even talk about emergence. This was brought up from the first time during Dr. Antognini's cross-examination. I'm sure Dr. Bergese in a minute is going to talk all about the signs of emergence, and so I would ask that -- for leeway on this.

THE COURT: Let the witness testify. We'll decide about weight later.

MR. WILLE: Thank you, Your Honor.

THE WITNESS: Yes, sir. This is something that I'm routinely consulted on by anesthesiologists to provide them technical guidance on, and that is the duration and the counterbalance effect of different medications and their impact on emergence. In fact, many patients, that's the reason that I'm consulted before, is concerns over the patient's ability to emerge from anesthesia. So this is part of a normal consultation, or what I teach as well.

In the course of that, emergence is -- well, first of all, correction on your question. You said "anesthesia." I reiterate again, anesthesia is the entire continuum of all attempts to block awareness based on levels of sedation: so

mild, moderate, deep, and general anesthesia. So we have to be careful in this case to use the appropriate terms when we're speaking.

So with that, as a patient is emerging or coming up to higher levels of awareness --

MR. KING: Excuse me, Your Honor. I apologize. I do have to object again on foundation. I have heard that he's consulted with anesthesiologists. I haven't heard anything about whether he's ever studied this concept of emergence or ever witnessed emergence or whether he's just talking about things that he's read.

THE COURT: So anesthesiologists who pay lots of money to insurance companies about malpractice say, Dr. Buffington, should I use this drug or should I not use this drug? I think that's enough to satisfy *Kumho Tire*.

Overruled.

THE WITNESS: Yes, sir. So this is part of my base training. It's also part of my professional activities. It's also something that I teach, to anesthesiologists.

BY MR. WILLE:

Q. Let me perhaps focus my inquiry a bit more. In your opinion, would -- would any of the signs of emergence that you saw depicted on the exhibit, would any of those signs be

necessarily indicative that the patient has completely emerged from the sedation of anesthesia?

A. No, sir. Putting that table into perspective and reading the paragraphs before and after, what it helps to explain, and could also be seen in another section where we discuss nociceptive pain, is that the painful stimuli, the patient's ability to elevate levels of consciousness, levels of sedation increasing, as opposed to depth, is that those are some of the autonomic symptoms. And we have heard that in testimony in this case already, that can be seen before a patient is actually aware.

That table and a table in -- additional table in *Miller's* helps to articulate that emergence is a three-phase process. And if you have ever heard of the word "post anesthesia care unit" or "PACU" -- so anyone who's had a surgery -- patients are moved from an OR suite to another suite while they're observed. And based on the one-, two-, or three-drug combinations or more, that patient is having time to go through the various phases of emergence.

So you could have a noxious stimuli while you are in anesthesia, some level of anesthesia, and not be aware, but your body can start to show physiologic symptoms or autonomic responses: the movement, the changes in blood pressure.

Now, those are, as we heard from both

anesthesiologists, those are -- the moment of professional expertise in the moment of a surgery is to decide how much longer, what was observed, and then how much to give to maintain a patient. So when we hear induction and maintenance, that's that maintenance phase.

When you're done with the procedure, then emergence starts, and, yes, that table can show, and those occur in the early phases of emergence. Full consciousness doesn't happen till the third phase of emergence.

Q. Doctor, I want to follow up something that His Honor just mentioned. In consulting with physicians or anesthesiologists concerning -- have -- you've consulted -- correct? -- in terms of the choice of perhaps a drug to be used in anesthesia?

A. Absolutely.

Q. And to your -- to your experience or knowledge, are there circumstances where there is -- a decision must be made as to use one particular drug versus another?

A. Yes.

Q. And what are some of the considerations involved in deciding whether to use one particular drug or another?

A. Sure. It could be the depth of anesthesia needed for the type of procedure being performed; could be the patient's clinical status, whether that means their cardiac status pre-procedure or their respiratory status prior to;

could be from a history of complications or adverse side effects that occurred while using a prior anesthetic and then that now needs evaluated to make a safe choice of new agent for any future procedures.

There is an abundance, but --

Q. Excuse me, Doctor, but what about one drug is available and the other drug isn't? Is that a legitimate --

THE COURT: That's too vague a question, Mr. Wille.

BY MR. WILLE:

Q. Let's be specific.

MR. WILLE: You're right, Your Honor.

BY MR. WILLE:

Q. Suppose that -- suppose that a drug -- say a physician was contemplating using one type of anesthetic but learned that the patient, due to some peculiar condition, that anesthetic was not available. Would at that point you assist the doctor in selecting an alternative in that instance?

A. Yes, sir. It could be an inventory issue. It could be what's available at a wholesaler, where medication are shipped to, a hospital or surgery center. It could be a supply or production issue. We have had many cases of drug shortages across the country, including in this area.

Q. Now, we heard testimony that the midazolam sometimes or

frequently is used in conjunction with another drug. Do you recall that testimony?

A. I do. And recommended in combined.

Q. And used in combination with, say, an analgesic. Do you recall that testimony?

A. I do.

Q. Now, in your experience, could there be a situation in which, due to a particular condition, an anesthesiologist would reasonably decide that midazolam alone would be preferable?

A. Yes, or acceptable. Either term.

Q. Or acceptable.

Doctor, I want to go back a little bit to this idea of ceiling effect. Now, granted, your testimony seems to indicate that you do not accept the data or the proof that there is such an effect for midazolam. That aside, in your opinion, what is the relevance to the theoretical possibility of a ceiling effect with respect to the use of the dosage level of midazolam in Ohio's execution protocol?

A. Yes, sir. Well, on the first point, there is no proof. So all we have is animal and laboratory data that looks at the way midazolam attaches to one of the GABA receptors. I don't think we heard in the earlier testimony, just to be transparent, there is no one GABA receptor. There is $GABA_A$, $GABA_B$, $GABA_C$, and then on each of those, there are multiple

subunits.

So the premise that there is a ceiling effect would have to be based on, one, you knew you were occupying all those receptors, and that's not what was demonstrated in the laboratory data; and two is you would have to assume, and that's where it becomes a theory as well, that you are depleting the body of GABA, and it's one of the most common neurotransmitters produced in the body.

So we have no data.

Q. Now, aside from that, though, Your Honor -- aside from that, though, Doctor -- and I understand your opinion on that -- but just assuming -- let's assume for the sake of argument that there could be a ceiling effect for midazolam at some undefined point. In your opinion, does that still matter in the particular instances of applying the dosage level called for in Ohio's execution protocol?

A. Not at all. Because we have nothing that would state that there is a ceiling effect insufficient to produce deep sedation and amnesia in an individual. As a matter of fact, what we know is that with larger doses, it's, in fact, lethal. So the ceiling effect in this case would be death.

Q. Let's talk about that. You just mentioned the lethality or potential lethality. Is -- can we call midazolam a safe drug?

A. Absolutely not. Benzodiazepines are a significant

point of abuse, a significant point of administration errors, and are, in fact, tracked by medical examiners, state departments of health, federal agencies, control -- are considered a controlled or scheduled substance because of the potential -- life-threatening potential side effects.

Are there other drugs who are worse? Absolutely. But it's by no means considered a safe medication.

Q. And just maybe perhaps one last question on this point. If -- given the potential lethality of midazolam and the dosage level that's called for in Ohio's execution protocol, in your opinion, is there a substantial risk that the use of midazolam could -- and with the follow-up drugs could result in serious pain?

A. No, sir. There is not even a foundation in this case that an individual would more likely than not have any pain from either drug two or drug three. Those would be outliers, and predominantly from misadministration.

Q. You mentioned earlier, Doctor, that there could be circumstances where midazolam could be used alone. Could you just elaborate on what you would know of those circumstances?

A. Sure. And I would just say that the majority of times, so it would make sense, that the majority of the times it's in cases where we don't need to put someone into full general anesthesia.

So if you are saying use midazolam alone, we would be looking at where it would logically be beneficial. In those cases, it could be used for vasectomies. It could be used for resetting bones following fractures. It's frequently used with bone marrow transplant aspiration, when we take a large-bore needle and thrust it into an iliac crest, into your hip, to pull fresh bone marrow out to give as a donor to give to the other patient. Placement of tubes, placements of implanted devices where you have to cut the skin, create a pocket, place the item in.

The person doesn't have to be fully asleep. They just need to be able to not be sensate to the pain and remember the experience.

MR. WILLE: Thank you, Doctor. That's all I have for the moment.

THE COURT: Cross.

MR. KING: Thank you, Your Honor.

CROSS-EXAMINATION

BY MR. KING:

Q. Dr. Buffington, welcome to Ohio.

A. Thank you.

Q. A little colder than Florida?

A. Much.

Q. This isn't the first time, though, you have been to Ohio, correct?

A. No, sir.

Q. In fact, you have served as a, I guess, an expert or a consultant to the Attorney General's Office and the Department of Rehabilitation and Corrections with regard to the lethal injection protocol; is that correct?

A. That is this case.

Q. Oh, that is this case, okay. And am I correct that you actually attended a training?

A. I attended a date that was available to meet with counsel, and they were in Lucasville on that date.

Q. Okay. So that was just a meeting with counsel. It wasn't to participate or attend any training on the lethal injection protocol?

A. I did get to see the facility, but it was not for the purpose of that.

Q. Okay. And so to make sure I understand this, have you consulted with the State of Ohio, the AG's office, or the DRC with regard to the lethal injection protocols outside of this case?

A. Not that I'm aware.

Q. Okay. So the only protocol of which you have offered any opinions regarding is the protocol that was, I guess, promulgated in October of 2016?

A. Yes, the current three-drug protocol.

Q. And have you reviewed any other protocols -- previous

versions of the protocols for purposes of your consulting work?
A. No, sir.
Q. We went through this before. You don't have -- you don't actually have a degree in pharmacology, correct?
A. Yes. The base domain of the PharmD degree is pharmacology.
Q. Okay. So you are claiming -- you are claiming your PharmD, your Doctor of Pharmacy degree, is the same thing as a pharmacology degree?
A. I'm saying it is the highest, largest volume of pharmacology training degree, period.
Q. And you don't have a degree in toxicology, do you?
A. No, sir. It is a subset domain of pharmacology.
Q. And just to be clear for His Honor, you can actually, though, get a degree in pharmacology, correct?
A. You could, but if you look at the individuals that do that, they are typically laboratory personnel who have gone from running instruments to providing administrative services in a laboratory. So that would be different.
Q. But you don't have one of those degrees, either a master's degree or a Ph.D. in pharmacology, correct?
A. No, sir. That would be a different type of domain of use.
Q. And Mr. Wille, I think, indicated during your direct

that you actually have an undergraduate degree, I think he said, in pharmacology if I recall correctly. You actually don't have an undergraduate degree, right?

A. I have never said that.

Q. I am sorry. Mr. Wille asked you -- represented that. I want to know. You don't have a pharmacology -- you don't have an undergraduate degree, correct?

A. That is correct. I did my undergraduate work in biochemistry. And he did not say that. I listened carefully.

Q. Oh, you do have an undergraduate degree?

A. I said I do not -- my undergraduate training --

MR. WILLE: I object. He mischaracterized my question.

THE COURT: Go ahead and answer the question, sir.

THE WITNESS: Yes, sir. My undergraduate training, I was accepted under earlier admission into the Doctor of Pharmacy program.

BY MR. KING:

Q. I don't want to beat a dead horse.

THE COURT: I understand that the witness has no undergraduate degree, no bachelor's degree.

MR. KING: Okay. Got it, Your Honor.

BY MR. KING:

Q. Now, am I correct that there -- have you ever heard of

the American Board of Clinical Pharmacology?

A. Yes.

Q. And is that a -- is that an accrediting organization?

A. It is an accrediting organization for board certification.

Q. Board certification. And are you certified in any way by the American Board of Clinical Pharmacology?

A. No, sir. I am a member of the organization, but that is a different domain.

Q. And actually, can a -- someone like yourself who has a Doctor of Pharmacy, can you actually become board-certified in clinical pharmacology?

A. I don't think so. I think that organization is predominantly M.D., where I am a member of many others that are PharmD.

Q. And do you know what kind of accreditation one can get, who has a Doctor of Pharmacy such as yourself, from the American Board of Clinical Pharmacology?

A. No, sir. The -- from the American -- from the Board of Pharmaceutical Specialties, of which I am on the board and helped to write those board certifications.

Q. Right. Back to make sure I understand your answer. Do you know whether a Doctor of Pharmacy can get any accreditation through the American Board of Clinical Pharmacology?

A. No, sir, nor would I expect it.

Q. Have you ever heard of someone becoming cert -- excuse me -- accredited in applied pharmacology?

A. No, sir.

Q. Dr. Buffington, you've never prescribed midazolam, have you?

A. Yes.

Q. You have?

A. Yes.

Q. Have you administered it?

A. Yes.

Q. Okay. Do you recall being -- you were an expert in a case, and I don't know if you have the complete copy of his deposition in the case of *Arthur versus Dunn*, a case that was in the United States District Court for the Middle District of Alabama.

A. That is correct. If you'll check the date on that, the date of prescribing would be after the date of that deposition.

Q. I'm sorry. The date of what?

A. Prescribing was after the date of the deposition.

Q. Oh, okay. So after -- so this deposition was actually -- took place on the 11th day of December, 2015, so a little over a year ago.

A. That is correct.

Q. So before your December of 2015, you had not ever prescribed midazolam?

A. That's correct. Only recommended during consultations.

Q. Okay. And then since then, how many times have you prescribed it?

A. I think probably three.

Q. Three times. And have you ever administered midazolam, ever?

A. Yes, during procedures.

Q. And was that before or after -- well, for how long have you been doing that?

A. Probably same thing, two to three times in the last six months.

Q. If I could show you -- I'll give you a part of your deposition, and counsel's got the complete version if you want to see it.

MR. KING: Your Honor, I will be happy to give you an excerpt of the deposition. We can give you a complete version, Your Honor, if you'd like it.

BY MR. KING:

Q. I'd like you to turn to -- if I get the right page here. If you'd turn to, it's actually page 8 of the deposition.

A. Is that a tab?

Q. No, just page 8. I am sorry, page 8 -- did I give it

to you?

A. No, sir.

MR. MADDEN: I am confused. Is this the same large document you gave us?

MR. KING: That's the complete. I didn't want to give him the complete. If you think I am reading something out of context, you can give it to him. I don't believe I will be.

BY MR. WILLE:

Q. Okay. So you were deposed in the case of *Thomas D. Arthur versus Jefferson S. Dunn*, correct?

A. That's correct, in December of 2015.

Q. December of 2015. That was Civil Action 2:11-cv-00438 in the United States District Court for the Middle District of Alabama, correct?

A. Yes.

Q. And you were testifying in this deposition as an expert for the State of Alabama, correct?

A. That is correct.

Q. And that was in connection with their lethal injection protocol?

A. That's correct.

Q. And at that deposition which took place on December 11, 2015, on page 8 -- if you could turn to page 8. On page 8, line 11, you were asked the following question:

"You have never prescribed or administered midazolam?"

13 -- or line 13, "Answer: That is correct."

Did I read that correctly?

A. You did. And I also clarified for you that that was predating those cases.

Q. For prescribing, correct?

A. And administering.

Q. And administering. I'm sorry. So you did not administer any midazolam before December 11th of 2015 either, correct?

A. Where I directly did the push, no.

Q. And at any time before December 11, 2015, have you -- had you ever prescribed or administered any benzodiazepine?

A. I would have to go back and look.

Q. Well, if you look at your deposition, going back starting on page -- again, page 8 -- I'll just read the whole thing.

Line 14, "Question: You have not prescribed or administered any barbiturate?

"Answer: That is correct.

"Question: Or any benzodiazepine?

"Answer: That is correct."

Did I read that correctly?

A. Yes.

Q. All right. And you, Dr. Buffington, you've never

administered general anesthesia to a patient, correct?

A. That is correct.

Q. You have never authored any papers that are specific to midazolam, correct?

A. That is correct.

Q. And you have never authored any book chapters specific to midazolam?

A. That is correct.

Q. And you have never conducted any scientific studies that are specific to midazolam?

A. That is correct.

Q. Now, if you could turn to, again, your CV. It's Exhibit -- make sure I've got the right exhibit number. It's Exhibit 93, right, Plaintiffs' Exhibit 93, which is your report. And if you turn to your curriculum vitae, and it's on page -- let's first look at page 1704. I hope you have got the right page number. That's your cover page?

A. Yes.

Q. And on page 1704, it says it's your CV, your name, and then your present, CEO of this Clinical Pharmacology Services, President of the American Institute of Pharmaceutical Sciences, and then it says that you are the clinical assistant professor of medicine at the University of South Florida College of Medicine, College of Pharmacy, right?

A. That is correct.

Q. And if I turn to page 1706 of your curriculum vitae, it has a section here called -- labeled "Faculty Appointments." Do you see that?

A. That's correct.

Q. Okay. And, again, it lists your faculty appointments at the University of South Florida, correct?

A. Correct.

Q. And it says you are on the department of internal medicine as a clinical assistant professor of medicine, correct?

A. That is correct.

Q. And then you have faculty level pending under the College of Pharmacy.

And then what do you do for the college of nursing, I'm sorry?

A. I used to teach the pharmacology curriculum class for the nurse practitioners.

Q. Okay. But you are still affiliated with the University of South Florida Medical Center, right?

A. Absolutely.

Q. And the College of Medicine?

A. Absolutely.

Q. And the College of Pharmacy?

A. Absolutely.

Q. And help me. I looked everywhere on their website for your bio, for any reference to you, and I couldn't find it. Is that --

A. It's not there. Many of the faculty members are not listed on the website.

Q. And that would include you?

A. Yes, I am aware of that.

Q. Okay. And do they not list any clinical professors, clinical assistants, or associate professors on their website?

A. I don't know. You'd have to ask them.

Q. Okay. Do you receive a salary from the University of South Florida?

A. Yes, I do.

Q. Is that the bulk of your income?

A. No, sir.

Q. Do you have a contract with the University of South Florida?

A. Yes.

Q. And if I look at the next page, 1707, it also says that you have an appointment at the University -- excuse me -- at the University of Florida, College of Pharmacy, correct?

A. That is correct.

Q. Is that an appointment you still hold?

A. Yes.

Q. And you -- and you say you are an assistant clinical professor?

A. That is correct.

Q. Again --

A. We have students from the University of Florida on a regular basis in our practice.

Q. And, again, I looked at the website, tried to find some more information about you, Dr. Buffington, and I saw no reference, no mention of you anywhere on the University of Florida's College of Pharmacy's website. Is that --

A. That's correct, nor would I expect to see it.

Q. Is that because they don't -- to your knowledge, do they not list clinical assistant professors on their website?

A. No. There is actual faculty members, other faculty members who aren't listed as well.

Q. Okay. Do you know whether, though, the University of Florida, College of Pharmacy does not list assistant clinical professors such as yourself on the website?

A. No, sir. I have never asked, nor questioned to be on it.

Q. Okay. And would it surprise you that there are assistant clinical professors who are listed on the faculty pages of that website?

A. No, sir. As I stated, I have never asked, nor

requested to be present.

Q. With regard to each of these various appointments at least you current have -- Mercer University, Lake Erie College of Osteopathic Medicine -- I am sorry. Is that the same Lake Erie College that's in Paintsville, Ohio, do you know? I am just curious.

A. Yes, sir.

Q. So Lake Erie College of Osteopathic Medicine, Florida A&M, Palm Beach Atlantic University, Nova Southeastern, Idaho State, Shenandoah University, Creighton University, can we find your bio anywhere on the websites of any of those organizations.

A. No, sir. Nor do I control what their policies are. And I can explain what roles I provide for those.

THE COURT: Perfectly all right, if he asks about them.

BY MR. KING:

Q. So as you indicated on your direct, you have -- you have been engaged as an expert before?

A. Yes, sir, numerous times.

Q. Many times, correct?

A. Yes.

Q. And if I look at your expert report, Defendants' Exhibit 93, if you'd go towards the back, starting on page, it's the Bates number 1760. And the first page is labeled

"Prior Forensic Review and Testimony," and then I think you go -- it continues for about 12 pages or so. And by my count, there are -- if I have this right -- roughly 390 different matters for which you have served as an expert in the past four years?

A. Over, I think it's five years based on this report.

Q. Oh, five years, since 2012. So 390 different matters?

A. Yes. Not all those include testimony but they do include some type of forensic inquiry. So we have a -- in our practice we have both a clinical drug information support service and a forensics.

Q. Is it fair to say, Dr. Buffington, that the bulk of your income is derived by serving -- from serving as a forensic reviewer and providing testimony as an expert?

A. No, sir. I would guesstimate maybe 15 percent.

Q. But 390 cases over five years, that's a lot of cases, wouldn't you agree?

A. Yes, but it doesn't correlate to a lot of work.

Q. Okay. But it's enough, at least, for you to put it in your CV, right?

A. No, sir. I was requested by your staff to produce it for you.

Q. And, in fact, in the -- that *Arthur versus Dunn* case, you actually provided a similar list, right?

A. I would assume so. It is not an uncommon request, but

it's not part of my CV.

Q. Let's see if I have it.

MR. KING: And I don't know what we're on. What are we on, 82?

I don't know, Your Honor, if I want to introduce this but I want to mark it.

THE COURT: PX 84. The record will reflect the witness has been handed, or is about to be handed, and now has been handed a document marked as Plaintiffs' Exhibit 84.

BY MR. KING:

Q. Dr. Buffington, I have handed you what's been marked for identification as plaintiffs Exhibit 84. Does that document look familiar?

A. It's a similar format, yes, sir.

Q. And my understanding is that this is -- this came from your expert report in the *Arthur versus Dunn* case. Do you have any reason to dispute that?

A. No. I would have to go back to validate it, but I would assume so. And this also goes back to 2011, where the current one you requested goes to 2012 -- starts at 2012.

Q. And this -- again, this is a similar case list. Is that for the roughly past four or five years? I didn't calendar it precisely, but it was a listing of your prior forensic review and testimony over -- at least covering the last four years?

A. I would assume so. And I don't compile the list, but one of my staff does, and it looks like the same format.

Q. Now, I'm sure you are aware that we had actually requested a listing of each of the times in which you have provided either expert testimony through a deposition or trial and that we received a listing of the times over the past four years in our case, the case here, where you have actually provided testimony. Do you remember that?

A. For related cases, yes.

Q. Well, where you actually provided expert testimony either through a deposition or trial?

A. Yes, sir. But I don't maintain the lists that way, and it was asked on the holiday, and there was insufficient staff or time to try to remedy that.

Q. Okay. I understand. In the listing that you -- that at least counsel served on plaintiffs' counsel identified six times when you've testified as an expert either through deposition or at trial over the past four years, right? No?

A. I don't even follow the question.

Q. Okay. Let me step back. It's getting late. It's Friday.

You understand that we had requested a listing of the times in the past four years where you provided expert testimony, either through a deposition or trial over the past four years?

A. Yes. And I don't maintain a list of that fashion.

Q. Okay. But, nonetheless, is it your understanding that a list was supplied to us?

A. Yes. I asked if the purpose of that list was for your ability to prepare for today, and that was related cases. I could remember the few -- there were four -- plus two emerging cases, Ohio and Virginia, and I was able to put those on a list for you.

Q. Okay. So the list that you gave us that only contains six cases only refers to what were considered to be related cases, right?

A. That's all I could produce on a holiday, yes.

Q. Okay. So you don't have -- you can't tell us here today how many times outside of these six cases where you have actually provided deposition testimony or trial testimony over the past four years?

A. That is correct. I do not maintain the list in that fashion.

Q. So if I recall in the *Dunn* case, at your deposition, you said that with regard to the list that we marked as Exhibit 84, that you actually had provided deposition or trial testimony in 50 percent of those cases?

A. I don't think I stated that.

Q. Well, let me just refresh your recollection then. If you could look at your deposition again. And if you could

go to page 78 of your deposition. I'll read the question and then I'll read the answer, and it says:

"Question: And we sort of -- to encapsulate it, if we had, looking at this list of testimony in the past four years, the prior forensic review and testimony list that your counsel submitted to the Court with your report, could you, looking at --"

A. I don't see where you are at.

THE COURT: Page 78.

BY MR. KING:

Q. Page 78, line 7, okay? You with me now?

A. I am.

Q. I will start again. I apologize.

"And we sort of -- to encapsulate it, if we had, looking at this list of testimony in the past four years, the prior forensic review and testimony list that your counsel submitted to the Court with your report, could you, looking at this list of testimony in the past four years, say approximately what portion of these cases you provided deposition and/or trial testimony?

"Answer --"

A. And I stated very clearly, "Not without going back to the list."

Q. "But I would --"

A. "But I would --" I'm sorry. Let me finish.

Q. Let me finish the answer.

THE COURT: Go ahead and finish your answer.

THE WITNESS: Thank you, Your Honor.

"But I would say just in general trends, it would be over 50 percent."

BY MR. KING:

Q. Okay. So in general trends it was over 50 percent. That's what your testimony was?

A. That was a guesstimate as obviously answered.

I also don't see the pages previous and following to see the rest of the discourse.

THE COURT: Right. This is an excerpt.

THE WITNESS: Yes, sir.

BY MR. WILLE:

Q. And beyond the four or five years that are identified in this, these forensic review and testimony lists, you've provided other expert testimony, like in 2011, 2010; is that correct?

A. 2008, 2004.

Q. And it's true that at least in some of those cases your opinions weren't accepted by the Court, right?

A. I'm not aware of any.

Q. Well, was there a case -- unless it's a different -- could be a different Buffington. I'm not sure. Did you provide expert testimony in a case involving -- in

Connecticut involving the estate of Sandra Dallaire?

A. I did. I remembered it well. Dr. Hsu.

Q. And there was a case, and it's reported, it's Dallaire versus Hsu, H-S-U. It's found at 23 Atlantic 2d 792, 2011. You actually offered expert opinions on behalf of the plaintiff in that case, correct?

A. Yes, sir.

Q. And I don't know -- understand all the issues, but at least one of the issues was whether -- it was a medical malpractice case, and the plaintiff had actually -- it was the estate bringing it. The plaintiff had actually died. And there was at least an issue of whether the decedent was, I think it's opiate naive or opiate tolerant. Does that ring a bell --

A. That's correct.

Q. -- this issue? And is it correct, the Court had said that with regard to your opinions -- I think you concluded that the decedent was opiate naive. It says, "With respect --" this is at 797 of the ruling. It says, "With respect to Buffington, the Court found that Buffington's opinion that the decedent was opiate naive to morphine was not tenable in light of the decedent's medical history and that this conclusion undermines his credibility."

Do you remember that ruling?

A. Yes, but your question that you asked me was has my

opinion or testimony ever been denied or rejected, and I testified twice in that case, and it was. And that was an appellate review.

Q. But the trial court didn't accept your opinions. It didn't reject them, just didn't accept them, correct?

A. No, they did accept them, and they made a decision based on their findings there. It wasn't rejected.

THE COURT: Mr. King, I will ask, rather than having my law clerk scurry for it, under the District of Ohio Rule 7.2, I will ask you for a copy of that opinion.

MR. KING: I will provide it to you, Your Honor. Keeping track of our time, Your Honor.

I am going to mark this as Exhibit 85; is that right?

MR. MADDEN: Was this exhibit previously given to us?

MR. KING: I don't think we are going to introduce it. I think I have to mark everything. We are got going to introduce it. I am just going to ask him about it.

BY MR. KING:

Q. Dr. Buffington, I hand you what's been marked for identification as Exhibit 85. It's an affidavit. I think it's your affidavit that was filed in the United States District Court for the Middle District of Alabama, and it's a series of -- I am not going to read every one. It looks like the first plaintiff is *Grayson versus Dunn*, and it's a

number of civil actions, 2:2-cv-316, et al., et seq. And I just want to ask you a few questions about it.

Do you recognize this document?

A. Yes.

Q. And this -- this affidavit, if I'm correct, was filed in a -- was it the same lethal injection case as where your deposition was taken, the --

THE COURT: *Arthur versus Dunn*?

BY MR. KING:

Q. *Arthur versus Dunn*, or is this a different case?

A. It's my understanding they are related.

Q. Okay. They are related. And at least with this case, *Grayson versus Dunn*, you actually -- you testified in that case; is that correct? Or am I right or am I wrong?

A. Well, are you defining testimony or deposition?

Q. You're right. Did you provide hearing testimony?

A. Yes.

Q. Okay. And you also provided deposition testimony?

A. I don't recall if it was twice.

Q. Okay. Well, if you -- just to refresh your recollection, if I see it here -- if you look on paragraph 3, which is on the second page of this affidavit, it says that, "I was deposed by counsel for the plaintiffs on March 17, 2016, in Birmingham, Alabama."

Does that refresh your recollection that you actually

gave a deposition?

A. Yes, but that may have been the deposition for *Dunn*.

Q. Would that have been in addition to the December 11th, 2015, deposition -- I mean, for *Dunn*. That's a little confusing.

This could have been in addition to the deposition that you testified -- when I was asking you about, or a different case?

A. I would have to go back to the calendar to confirm.

Q. All right. But you do -- do you recall being deposed sometime on or about March 17, 2016, in general?

A. No, sir.

Q. All right. Do you ever remember giving any deposition testimony about -- where you were asked questions about whether you believed that it was possible to obtain compounded pentobarbital?

A. Yes. I do recall that.

Q. You do remember that. And you provided that testimony, and then after the deposition, if I understand it, you went and contacted some compounding pharmacies of which -- that you know of, and inquired -- made inquiry whether, in fact, they could provide or would be willing to provide compounded pentobarbital to the Alabama Department of Corrections?

A. That is correct. I was not commissioned to do that by Alabama. That was a request by opposing counsel.

Q. Right, right. And so you did that, and you contacted, if I haven't said that already, about 15, is that right? Roughly 15?

A. I think I started with 10 and added 5 more calls.

Q. And at least among those 15 that you contacted, you didn't find anybody who was at least willing or capable of providing compounded pentobarbital to Alabama?

A. Not without further information. So they weren't -- they were not comfortable saying put my name on the list and providing it blindly back.

Q. Despite that kind of informal survey you did, or inquiry with the 15, you nonetheless stated in this affidavit, which is dated the 22nd day of April, 2015, if you look on page -- which is on page 4 of the -- is that right? Is that page 4? Yeah, it looks like --

A. I think I have got two copies.

Q. That's okay. Just look at page -- the last -- look at the last page. That will be easiest.

A. Yes, sir. Paragraph 8.

Q. In paragraph 8, you said, despite your inquiry of these 15, you said, "I maintain my belief that there are pharmacies in the United States that are able to compound --

THE COURT: Pharmacists.

BY MR. WILLE:

Q. I am sorry. "I maintain my belief that there are

pharmacists in the United States that are able to compound pentobarbital for use in lethal injections because other states have been reported to have obtained compounded pentobarbital for use in executions."

Did I read that correctly?

A. I do agree with that statement.

Q. You can put -- you can put that down.

There's been some testimony about the bispectral -- if I have this right -- the BIS value and the BIS index?

A. By Covidien.

Q. And the machine?

A. By Covidien.

Q. Covidien is actually the manufacturer. The Court actually had a question of who produced it, and it's Covidien, C-O-V-I-D-I-E-N?

A. It's A-N [sic].

Q. A-N. And that's actually a machine that is used to monitor the consciousness, anesthetic depth, when a patient goes -- undergoes anesthesia, right?

A. It's used to measure EEG waves and correlate those through an algorithm to levels of sedation.

Q. In that -- that algorithm, do you know what it is?

A. No, sir.

Q. Is that -- that algorithm, to your knowledge, if you know, proprietary to Covidien?

A. It is, and it's been tested in numerous studies.

Q. And through that algorithm is how you come up with the values that are on the BIS index?

A. That's correct.

Q. Have you ever operated a BIS machine?

A. No. I've been present, but not personally done the operation.

MR. KING: Nothing further, Your Honor.

THE COURT: Redirect?

MR. WILLE: Yes, Your Honor. Briefly.

REDIRECT EXAMINATION

BY MR. WILLE:

Q. Doctor, explain again the process through which you obtained your degree. Tell us about that and with respect to the -- elaborate on the whole process of going from undergraduate to your doctorate program.

A. Yes, sir. So I was doing undergraduate studies. I did complete it over three years of a biology and biochemistry degree at the University of South Florida in Tampa, at which time I was accepted under early admission into the doctorate program at Mercer in Atlanta.

And the Doctorate of Pharmacy program is the most comprehensive. If you think of a doctorate-level degree as a clinician, as an M.D., as a Doctor of Medicine, this would be the same to pharmacy and pharmacology being the domain

set.

THE COURT: It's a practicing degree as opposed to an academic degree.

THE WITNESS: That's correct. We refer to them as professional degrees.

THE COURT: As do we.

THE WITNESS: Yes, sir.

THE COURT: It took us forever to get from the L.L.B. to the J.D. --

THE WITNESS: Yes.

THE COURT: -- in the legal profession, whereas the doctors had progressed from the M.B. to the M.D. probably 100 years before we got there. But the distinction is one that you understand; it's a professional degree as opposed to an academic degree.

THE WITNESS: That is correct.

THE COURT: All right.

BY MR. WILLE:

Q. Is that a -- is that a common practice? I mean, not common in the sense it's easy, but is it a common practice for persons who qualify to do this to be able to do this?

A. Yes.

Q. You don't --

A. You mean to transition?

Q. Yes.

A. Yes. It was an honor, actually, to be able to be selected. The vast majority of admissions candidate have four-year degrees, so I was accepted based on my academic performance and other attributes.

And completed that degree, which there is pharmacology training in each of the four years. And that includes clinical practice. It includes clinical research. It includes regulatory processes related to the profession as well.

Q. You were asked some questions with respect to, on your curriculum vitae, listing your professorships, associate professorships, et cetera. Do you recall those questions?

A. Yes, sir, I do.

Q. Do you -- I guess, do you have any input or control over how universities list professors and so forth on their websites?

A. No, sir. And it is a bone of contention at all universities.

Q. And you are aware of instances where you know other persons who have positions similar to yours aren't listed?

A. Absolutely.

Q. Now, in terms of your testimony as an expert, how many times, in your estimation, has your testimony been accepted at a trial level and appeal level?

A. 100 percent of the times.

Q. And can you give me -- give me, again, in terms of numbers, your -- give me a ballpark figure in terms of where you might have done some criminal -- maybe expert testimony in a criminal area?

I'll withdraw the question. One last question, Doctor. You were asked some questions about the availability of compound -- pharmacists who might compound pentobarbital or other drugs. Do you have any specific knowledge about where Ohio can contact these compounders so we can employ them?

A. Currently, no.

MR. WILLE: Thank you.

THE COURT: Recross?

MR. KING: Nothing, Your Honor.

THE COURT: Very good. Dr. Buffington, you may step down.

THE WITNESS: Thank you, Your Honor.

MR. KING: Actually, Your Honor, can I approach? I don't have a stapler, but I do have an extra copy of this, the decision to which I referred, and you can have it.

THE COURT: Very good. And speaking of this case law, I have now had a chance to look at the four cases that you cited to us, Mr. King.

Would you agree with me that in every one of those cases, the expert who was excluded was excluded as a result of a motion in limine?

MR. KING: Your Honor, yes. And I apologize to the Court for not -- for not filing something sooner. I will say -- it may not be an excuse. I will say I wasn't sure exactly for which area -- in which area he was going to be questioned on. We didn't have an opportunity to depose him, and so I didn't know whether -- if he was going to be, you know, qualified as a pharmacist, there would have been nothing from me. But I, in preparing for this, I came across these cases.

THE COURT: Understood. I just wanted to backstop my own point by noting that in each of these four cases, the decision was made on a motion in limine.

So we're finished with Dr. Buffington. Who's next?

Actually before we -- before we hear whoever's next, we are going to take ten minutes.

THE COURTROOM DEPUTY: All rise. This court stands in recess.

(Recess from 3:32 until 3:45 p.m.)

THE COURT: Somebody tell me who our next witness is.

MS. BARNHART: Your Honor, the plaintiffs call Dr. Stevens in rebuttal.

THE COURT: Dr. Stevens in rebuttal.

Sir, please remember you are still under oath.

THE WITNESS: Yes, Your Honor.

CRAIG W. STEVENS, PLAINTIFFS' WITNESS, RESUMED STAND

REBUTTAL EXAMINATION

DIRECT EXAMINATION

BY MS. BARNHART:

Q. Welcome back to the witness stand, Dr. Stevens.

A. Thank you.

Q. You heard Dr. Buffington testify that benzodiazepines can be used for the induction and maintenance of general anesthesia. Is that correct in your opinion?

MR. WILLE: Objection, Your Honor. I don't believe he testified to that effect.

THE COURT: I believe he did. Go ahead.

THE WITNESS: I believe under the FDA indications it says for the induction of anesthesia. I don't believe under the actual indications it says for the maintenance, though.

BY MS. BARNHART:

Q. Now, midazolam might be used during anesthesia in conjunction with something else?

A. That's correct.

Q. But alone can midazolam or any benzo that you know of -- benzodiazepine -- be used for the maintenance of general anesthesia?

A. No, it cannot.

Q. And is there testimony in either your initial report or

rebuttal -- not testimony -- I guess evidence or information in your report that supports that view?

A. Yeah, I actually created a table of the FDA indications of midazolam and pentobarbital and other agents in my original report.

MS. BARNHART: Okay. And could the witness have the expert witness binder, expert exhibits.

THE COURT: Which tab's it going to be, Erin?

MS. BARNHART: His original report is under tab 1. Conveniently the Bates pages match up with the pages of his report.

BY MS. BARNHART:

Q. And to speed things up, I believe we're talking about Bates page 9, but I'll let Dr. Stevens confirm that.

A. Actually page 11 of 32 on the bottom numbering system.

THE COURT: Thank you.

THE WITNESS: And you'll see Table 3, "Comparison of therapeutic uses for 5 benzodiazepines and 5 barbiturates."

BY MS. BARNHART:

Q. And how does this table support the opinion that you just gave?

A. If you look on the very first column on the left, it shows the FDA therapeutic use is listed in the full prescribing informations for those agents. And you'll see,

for midazolam, which is fifth, fifth row down, it looks like it starts, it's approved for preoperative sedation, outpatient sedation, anesthesia induction, sedation for intubated patients, and as a co-anesthetic. So not as a sole anesthetic, for example, under that middle -- middle row there.

Q. All right. Now, Dr. Buffington testified that noxious stimuli, he said it's not just one thing. It could be anything, including even a verbal stimulation or a shaking. Does that meet what you consider to be noxious stimuli?

A. No. He was incorrect about that.

Q. Okay. And how so?

A. Noxious stimuli has to at least activate what he was talking about, nociceptive fibers, the pain fibers that begin it: certain hot, cold, electrical shock. Those pain fibers have to be activated for a stimulus to be noxious. Definitely a verbal stimulus won't be noxious. I mean, obviously there's verbal abuse, but it's not really noxious.

THE COURT: In that sense. There was some testimony -- I don't recall whether it was yours or not -- but there was some testimony that a noxious stimulus has to be something that could cause tissue damage?

THE WITNESS: Correct. Pain is described --

THE COURT: Let me ask, first of all.

THE WITNESS: Yes.

THE COURT: Is that your -- was that your testimony?

THE WITNESS: No, it wasn't, sir.

THE COURT: But you heard it from someone.

THE WITNESS: I did hear it from Dr. Antognini. He was talking about the International Association for the Society of Pain's definition. He called it the IASP. And they talk about pain being the either real or potential tissue damage.

THE COURT: Okay.

MS. BARNHART: Thank you, Your Honor.

BY MS. BARNHART:

Q. So, then, Dr. Buffington said that he believed that someone could be sufficiently sedated as to be unaware of a noxious stimuli. And I believe that was in reference -- and I believe his opinion is in reference to midazolam specifically could sufficiently sedate someone to be unaware of a noxious stimuli.

Now, considering what we were just discussing about his definition of noxious stimuli, do you believe that that statement is relevant to the question in this case about midazolam's appropriateness as the first drug in Ohio's three-drug protocol?

A. No. I believe that he used the terms very confusingly. He was talking about sedation could produce unawareness to

pain. Well, we know from the anesthesiologist experts, the ASA table, that you only get unawareness of pain when you actually reach the state of general anesthesia.

So for him to confusingly use the term "sedation," which he did quite a bit when he was talking about general anesthesia, and so that was confusing to me.

Q. And that's something that you discuss in your rebuttal expert report, the delay?

A. Correct.

Q. So he did that in his initial report, and you address it in your rebuttal report.

But, specifically, if Dr. Buffington is defining noxious stimuli as something as minimal as a verbal command or shaking, and then he says that midazolam can render someone sufficiently sedated as to be unaware of such a noxious stimuli, does that help the Court at all figure out whether midazolam can be effective as the first drug in Ohio's three-drug protocol?

A. No, it's not useful.

Q. And why not?

A. Because we're not talking about a verbal stimulus here with the second and third drugs. We're talking about known discomfort, pain, intolerable pain in some cases.

Q. And the type of pain that we're talking about from the second and third drugs, your opinion is related to the pain

from those drugs. Just to make it clear, I know Dr. Bergese talks about other types of pain that might be associated with the process of dying, or the drugs themselves.

But just for your purposes, are you aware of any scientific data that would demonstrate that midazolam can sufficiently sedate, if we are going to use the term loosely, using Dr. Buffington's language, sufficiently sedate someone as to be unaware of a noxious stimuli of the level that would be experienced in a three-drug protocol such Ohio's?

A. I have not seen any data to support that.

THE COURT: I apologize, Ms. Barnhart. My English here is troubling me. A noxious stimulus. Many noxious stimuli. And it's only because that term is so important that if you are able to --

MS. BARNHART: Thank you, Your Honor.

THE COURT: -- keep the plural. Because we have had testimony about how the consciousness checks would involve serial singular noxious stimuli.

MS. BARNHART: Yes, that's correct, Your Honor.

THE COURT: Thank you.

BY MS. BARNHART:

Q. Dr. Buffington testified that your testimony about the ceiling effect confused -- I think he said was -- that the figure that is in your report on page 7 of your initial

report, that Figure 1, that's a typical textbook example of the graph. It has the straight line from barbiturates and then it has the curved line that we discussed in detail showing the trajectory for benzodiazepines, and we have presented that as an illustration of the ceiling effect.

He said that this is confusing potency with a ceiling effect. Do you think he's right about that?

A. No. Potency is different. Potency just depends on how much of a drug you need to reach a given effect. So, for example, we see that line for barbiturates. You might have another line to the left of that. That would be another, more potent barbiturate that would reach you with lower doses, for example.

Q. But just to make that clear for the record, you are suggesting that if we were to draw in a line that kind of bisected that triangle that's formed by the vertical axis and the -- and it looks like it's about a 45-degree angle for the barbiturate line?

A. Correct.

Q. If we put a line in between those two, so -- my math isn't sufficient enough to figure out what angle that would be -- but you are saying that would be a demonstration of a more potent drug?

A. Right. Usually it would be parallel to the first line --

Q. Oh, I see.

A. -- for drugs that had the same effect on receptors. But, yeah, if you would shift the line parallel, and if that one barbiturate line was already there would represent one drug -- for example, thiopental -- and then pentobarbital is drawn to the left of that as a more potent drug, that would represent potency.

In this case, it doesn't matter the potency of a benzodiazepine because it has to have GABA present to work, it will always tail off because there is not an infinite amount of GABA. It's limited by our brain neurons in our brain and everything else as far as nutrition.

Q. And did it matter that Dr. Buffington said, well, there is all types of GABA. There's not just one type of a GABA receptor. There's $GABA_A$, $_B$, and $_C$. Does that matter?

A. No. That was a little bit, I think, of a false red herring maybe it's called, because it's only the $GABA_A$ receptor that the benzodiazepines produce this kind of a effect. They don't work at the $GABA_B$ receptor, which is a whole different type of receptor that's used as drugs that work on antispasticity, for example. There is drugs that work on $GABA_B$.

So it's only the $GABA_A$ receptors that are in question here.

Q. Okay. And just so I make sure I understand what your

testimony was going back to the figure about a more potent drug. If there was an additional line to the left of that existing barbiturate line, that would show more potency because it would more quickly accelerate up the vertical axis sooner as it traveled along the horizontal axis that's the dose axis?

A. Very good. In other words, it would take a smaller dose to reach the maximal effect than the drug to the right. So, yes, that's a good way to put it.

Q. Okay. Thank you. Dr. Buffington said -- well, this is I guess kind of related here -- but he said in addition to what we've just discussed about calling this graph really having to do with potency instead of the ceiling effect, he said there is no literature and no scientific data about midazolam having a ceiling effect and that there is only a theory of a ceiling effect.

THE COURT: I would call his testimony as being about no scientific data about ceiling effect in studies on humans.

MS. BARNHART: Thank you, Your Honor. Yes, I think he did say that later, and so I am happy to address that now.

BY MS. BARNHART:

Q. So I guess there is two parts. As to whether there is a ceiling effect in human -- in humans, Dr. Antognini agreed

with you to the extent that there is a ceiling effect as to the EEG and the receptors, right?

A. That is correct.

Q. And would there be an EEG with cells in a petri dish?

A. No, there wouldn't.

THE COURT: The best question of the entire hearing.

MS. BARNHART: And on that note --

BY MS. BARNHART:

Q. So in addition to just sort of that general understanding, if we turn to page -- I believe it's page 26 of your report. If we look to the second full -- well, maybe I guess it's -- you can tell me. I think it's the first full -- first two full paragraphs on that page. Do those paragraphs list scientific literature and data about midazolam have a ceiling effect in humans?

A. They do.

Q. Now, I'd like to switch to your rebuttal report which is at the end of that binder, and it's Bates page 1041.

THE COURT: The end of the binder?

MS. BARNHART: I believe it's towards the end of the binder. Not the last tab because some of the tabs are empty, but the last tab with anything behind it.

THE WITNESS: Tab 8.

THE COURT: Tab 8.

THE WITNESS: Thank you, Your Honor.

THE COURT: You're welcome.

MS. BARNHART: Is everyone there?

THE COURT: Yes.

BY MS. BARNHART:

Q. I'd like you to explain your opinion as reflected in your report regarding Dr. Buffington's report and testimony here today that midazolam can be lethal.

A. Sure. I guess first what I'd like to point out is the table on what's numbered page 10 of 15 of my rebuttal report at the bottom there, 10 of 15.

Q. And that's Bates page 1041.

A. Thank you. Who's Bates anyway? I don't know.

Q. A machine, right?

THE COURT: A prior courtroom deputy used to have a cartoon of a woman nailing worms to documents, and the lawyer says, "What are you doing?" She said, "You told me to Bates stamp these."

As we talk about the proprietary BIS monitor?

THE WITNESS: Yes.

THE COURT: There is a proprietary numbering machine made by the Bates Manufacturing Company. Should you be at all interested either in looking at one or even acquiring one, we would be glad to be of assistance.

THE WITNESS: Thank you, sir. Very interesting.

So on this particular table -- and it came from a reference that Dr. Buffington mentioned, Reganthal 1999 paper that you can actually see in the box there, the journal and the citation. What's very interesting is that, if you notice, it has different plasma concentrations on the top there. The different categories are therapeutic, toxic, and comatose-lethal.

On the first column going down, you see different barbiturate compounds, including thiopental, pentobarbital, and a number of other ones, and then you see diazepam and midazolam. And all -- both the barbiturates and the benzos have therapeutic dose ranges as shown there. We won't read the numbers there. They are all sort of toxic, those ranges. And if you notice, comatose-lethal --

MR. MADDEN: Where are we at?

MS. BARNHART: It's in Bates page 1041, which is in his rebuttal report.

THE COURT: Tab 8 of the expert witness binder.

MS. BARNHART: Thank you, Your Honor. 1041. The expert --

MS. LOWE: The binder that we were given doesn't have the extra tabs in it. I think you guys just handed us --

THE COURT: Ms. Lowe, would you bring that binder that you are holding to me, please?

MS. LOWE: Yes, Your Honor.

THE COURT: It may not be in the binder. It was filed at document number 900-1.

MS. LOWE: Yes, Your Honor.

MS. BARNHART: We marked this during his --

MR. MADDEN: Your Honor, I believe we are getting into information -- getting into tests that were -- that he was not allowed to speak to in direct examination.

MS. BARNHART: These aren't tests.

MR. MADDEN: If it's the ceiling effect because of his analysis of BIS scores, that's what the Court would not allow him to testify about the other day.

THE COURT: It's not about that.

MR. MADDEN: It's not about that.

THE COURT: Go ahead, Ms. Barnhart.

BY MS. BARNHART:

Q. So, Dr. Stevens, you were talking about this chart which was in a study that Dr. Buffington cited?

A. Correct.

Q. And I forget how far you went.

A. I was kind of getting to the main point.

Q. Continue then.

A. Which is fairly amazing when you think about a drug class, because what you see for both of the benzodiazepines, there is no toxic dose -- I mean, I am sorry -- there is no

comatose-lethal dose range. So there is nothing there. And I have enclosed that nothingness by a box.

THE COURT: That box is your addition to the table?

THE WITNESS: Correct. And it says that somewhere --

THE COURT: Just as a matter of highlighting.

THE WITNESS: It is as a matter, yeah. I might not -- somewhere I think I've said that, I enclosed the box.

But that is amazing. There is very few drug classes that do not have a lethal range.

BY MS. BARNHART:

Q. But I thought Dr. Buffington said people can die from midazolam?

A. They can. But the overwhelming majority of those are when there is another drug on board, namely an opioid. That's the number one death-producing combination.

Q. I see. And so this chart reflects benzos like midazolam alone?

A. Correct. Very safe.

Q. Dr. Buffington also said that midazolam is also -- often used alone in circumstances short of full general anesthesia for procedures like vasectomies, resetting a bone fracture, respiration having to do with bone marrow transplants, and placements of tubes and devices.

A. Yes, I heard that testimony.

Q. And is midazolam the only drug administered to a patient for procedures like those?

A. I would think not. For example, anytime, like a vasectomy, there is an incision made, they are going to use a local anesthetic, too. So --

MR. MADDEN: Objection as to -- I think he can testify if he has personal knowledge, but I think not --

THE WITNESS: Vasectomy. Sorry. Sorry, Judge.

THE COURT: I don't know if I'd invite that error.

BY MS. BARNHART:

Q. We have learned a lot about --

A. Sorry.

Q. -- the personal health histories of the parties and the Court in this case.

All right. So you were saying.

A. I'm sorry. So, yes, in my opinion, again, there would be other drugs on board along with midazolam.

Q. Okay. Thanks.

THE COURT: You've heard testimony, I think, and you may have given some of it, about the use of midazolam to permit intubation. And I think somebody testified -- and I know somebody testified that you'd use a higher dose for that. Was that either your testimony or --

THE WITNESS: I didn't testify to the dose but I

did testify to its use with an opioid in like a colonoscopy. I think we shared our experience.

THE COURT: Right. But we are talking about --

THE WITNESS: Oh, intubation? That was Dr. Antognini that talked about that.

THE COURT: Do you agree with his testimony about that?

THE WITNESS: I don't agree that as a sole agent.

THE COURT: Right, okay.

BY MS. BARNHART:

Q. Dr. Buffington said that it was -- at one point he referred to reaching a level of deep sedation that is equivalent to the level of general anesthesia.

A. Right. Again, I found some of his testimony confusing with regards to the terminology.

Q. Could you elaborate on that?

A. Sure. And I think we've made clear on the previous time I was here that the ASA, very authoritative organization, American Society of Anesthesiology, has a very nice table that shows mild sedation, moderate, deep sedation. Then you don't talk about sedation. Then you talk about general anesthesia.

So to say sedation can cause general anesthesia, totally confusing and not consistent.

Q. And so I believe one of the criticisms of plaintiffs'

experts, including you, and the defendants' reports were that we were referring to consciousness as all or not. And can you maybe put that sort of characterization in context with the information that you are discussing about the ASA's position on the levels of sedation versus general anesthesia?

A. Sure. I think there is more of a gradation. In other words, harder to tell going from mild to moderate to deep sedation. But I think once you hit that general anesthesia, there is a bright line. That's a legal term, I think. I've learned that.

But -- and so that in that case, you do have unconsciousness. And once you get there, I think we've had testimony earlier saying that that can be differentiated from coma either by the EEG pattern or other signs that anesthesiologists know. So, yes, once you cross that bright line of unconsciousness, there may be different levels going deeper.

Q. Okay.

A. But not upward.

Q. And so the bright line to which you refer -- and I think if we could turn back to that ASA table, which now this is on page 9 of your original report.

A. Right. Okay.

Q. Which property -- or I think Dr. Antognini used the

term "end point," you know, an end point of general anesthesia, which he testified was immobility -- well, I won't characterize his testimony. But I know Dr. Bergese testified that it's immobility, insensate to pain, and lack of awareness, kind of the triad of three end points of general anesthesia. To which of those end points does the bright line that you are referring to now pertain?

MR. MADDEN: Objection. No foundation as to his knowledge of depths of anesthesiology.

THE COURT: Overruled.

THE WITNESS: I think as it shows in this table, definitely the immobility would apply because it says unarousable even with painful stimulus. And then the second thing that's noted underneath the table, they write, it's only at the stage basically of general anesthesia that you get a drug-induced loss of consciousness.

So that would also mean amnesia and loss of consciousness. So this isn't directly related to those three.

BY MS. BARNHART:

Q. I see.

A. But the way they put it here I think is probably the most important factors: unarousable to painful stimulus and loss of consciousness.

Q. And only in the level of general anesthesia are you

unarousable to pain?
A. That's correct.
Q. Thank you. Dr. Stevens, what did you think about Dr. Buffington's testimony that he has I guess somewhat recently both prescribed and administered midazolam?
A. Well, I was shocked because my understanding is only physicians can prescribe and administer drugs. And, in fact, midazolam being a controlled substance has even another hurdle because you have to be registered with the DEA. So I immediately, like, wow, how could he do that? Is there a special deal going on in Florida? I don't know.

I mean, there are some other classes besides just physicians like some nurse practitioners have a limited prescribing ability, but I don't believe it includes controlled substances. Of course, it's state by state. But in his case, I was very surprised when he stated that.
Q. I'd like to discuss the purported analgesic properties of midazolam, and I believe that your rebuttal report has some information about that, which we can refer to and then have you explain.
A. Yes.

THE COURT: Yes, back to Tab 8.

MS. BARNHART: Yes, thank you.

BY MS. BARNHART:
Q. What page?

A. I am on page 5 of 15.

Q. And the Bates page for that?

A. Bates page is 30147.

Q. No, that's the PageID. The Bates are at the bottom.

THE COURT: 036.

MS. BARNHART: Thank you.

THE WITNESS: Oh, I see it on there, yeah. So he actually stated, "Benzodiazepines, including midazolam, possess analgesic properties." And in that sense, he's probably the farthest from the mainstream facts about benzodiazepines, because textbooks, and especially *Miller's Anesthesia*, shows -- and I have quotes there that you guys can read, of course, and it definitely lacks analgesic properties, must be used with other anesthetic drugs to provide sufficient analgesia, and it goes on and talks about midazolam/benzodiazepine.

And, in fact, I did a little bit of research and found a paper that's recent, 2013 by Frolich, and that's above the *Miller's* quotes there in that first full paragraph of page 5 of 15. And they actually took human subjects, and they said, you know, we are going to answer this question because there might have been some controversy. And they actually took human volunteer subjects and gave them midazolam, or a saline solution so there was a good control, and they saw that after they also subjected them to pain tests -- cold

pain tests, the heat pain tests, and even electrical shock pain tests -- midazolam not only was not analgesic, it actually decreased the pain threshold. So it made them hyperalgesic. It made them more sensitive to pain.

THE COURT: Increased the pain threshold or decreased?

THE WITNESS: I am sorry, sir. It decreased the pain threshold and made them -- increased the pain or produced hyperalgesia. Thank you.

BY MS. BARNHART:

Q. So they were more susceptible to pain?

A. More sensitive to pain with midazolam compared to the saline control solution. So that, you know, really says the analgesia in the past, sure, there might have been some pre-clinical animal studies that suggested it was there. But I think that study by Frolich and the fact that it's in *Miller's Anesthesia* kind of closes the book on is it analgesic or not. And the overwhelming support is that it is not in analgesic properties at all.

Q. Okay. Let's turn to Bates page 1042 to your rebuttal report.

A. Okay.

Q. And I would just like to have you explain -- this is in the one, two -- third, starting with the third full paragraph on that page, which begins in the second paragraph

of Section 7.

THE COURT: I'm sorry. I was making a note, and I forgot to pay attention to your page reference.

MS. BARNHART: 1042.

THE COURT: Thank you.

MS. BARNHART: Under Tab 8.

THE COURT: I have it.

BY MS. BARNHART:

Q. This is where you address Dr. Buffington's testimony or opinion that in humans, midazolam can reach the level of general sedation -- I am sorry -- general anesthesia. And I'd just like to give you an opportunity to explain your critique of his use of the supporting data for that position.

A. Yes. First, Dr. Buffington -- it's in the middle of the page there -- talks about BIS values less than equals 60 are considered indicative of general anesthesia. That's his statement.

And then he goes on and talks about the Liu study, which he says individuals became unresponsive to mild prodding or shaking. And from there he goes on to state that midazolam produces general anesthesia from that study, but at this point of sedation, an individual BIS value was only 69.

So the fact that his own source demonstrates that

midazolam only brought the BIS value down to 69 and produced sedation is not general anesthesia. So that's not supportive of his point that it could produce even unconsciousness at all.

Q. Okay. And that mild prodding or shaking, as each individual noxious stimu --

THE COURT: -- li.

MS. BARNHART: Sorry.

BY MS. BARNHART:

Q. -- related to the earlier discussion we were having about the wide range of noxious stimuli, is that the kind of noxious stimuli that we would -- that would be relevant to the consideration of midazolam's use as the first drug in Ohio's three-drug protocol?

A. No.

Q. All right. And then would you like to continue?

A. Well, then he talks about the Bulach's study which he just mentioned, Bulach, et al., which is contained in the next paragraph, and there are some individuals that got as low as 66 with the BIS score. But it wasn't the mean value, which was 71.

Q. Well, can you explain why that matters?

A. Yeah. I mean, every experiment's going to have outliers. It could be due to methodology or something. Everyone's not going to respond exactly the same to a drug

obviously. And scientists look at mean values. That's how we compare data. We do tests on the means, and we do different statistical tests based on the means and the variance, of course, too.

So, yeah, having an outlier of 66 and pointing that one out, you know, you could have also pointed out the one that only went to 95, you know what I mean, and then, you know, selected data that way.

THE COURT: It is well above 60, is it not?

THE WITNESS: Correct. And it is still well above 60. Thank you, Your Honor.

So this is not supportive of midazolam being able to produce the BIS levels that are associated with general anesthesia or, therefore, unconsciousness.

BY MS. BARNHART:

Q. And did Dr. Buffington provide any study cited anywhere in his report of references, to which you are aware, where the BIS level hit 60 or below?

A. No, I don't believe he did.

Q. Incidentally, when we're on the topic of means and kind of standard error, you remember that I believe it was Dr. Antognini on the easel drew the curve of the ceiling effect and drew those kind of Ts.

A. Right.

Q. And said, well, theoretically, you know, or maybe in

reality at one point could be lower and one point could be higher. What do you think about that criticism?

A. That criticism is true that it could be out there, but what should also be noticed is that the mean value is where the most likely values lie. In other words, we might all remember that bell-shaped curve from statistics. Obviously in the middle of that curve is where the most values are, and then it tails out on both sides. So the mean is still representative of the most likely value.

Q. And would that criticism apply to just basically any kind of science we were doing in trying to plot a curve of data?

A. Sure. And that's why scientists do statistical tests, to show that they are really, truly different. If there is two drug treatments, for example.

Q. Do you feel that's a valid criticism of the ceiling effect?

A. No, because there is still a ceiling effect. I mean, you can still see it after three or four doses. And there is other supporting data as well in many other studies.

Q. Okay. And both Drs. Antognini and Buffington testified that benzos, like midazolam, are not safe drugs. What's your response to that testimony?

A. Quite frankly, I find that a little disingenuous, because benzodiazepines are probably one of the largest drug

classes that are used: Ambien, Xanax, diazepam, Valium. It goes on and on. And the reason they are so popular and so commonly used is because they are safe. They have replaced the barbiturates because the barbiturates, not having a ceiling effect, can much more easily produce respiratory depression.

Q. And they have replaced them in what -- for what use?

A. For just about all clinical uses except maybe anti-epileptic use. So for anxiety, people no longer take succinyls or reds or whatever they used to take in the '50s. And so, you know, anxiety being a big one, being able to sleep, people no longer take barbiturates for that. So clinically, benzodiazepines, you know, have been a real godsend, in fact, being able to treat numerous people: panic disorder, agoraphobia. So they have largely replaced the barbiturates because they are so safe.

Q. And just to connect up with what you said earlier. When they are unsafe, in a case where we say lethal outcome, that was because?

A. Overwhelming because they were involved with another drug on board. In that case, yes, the combination of benzos, benzodiazepines and opioid, benzodiazepines and ethanol, very dangerous. Single use, therapeutic doses, extremely safe.

Q. And on the Bates page 1043, which is the next page, I

think, from where we were, third full paragraph that begins in Section 11, page 9 of Dr. Buffington's report. There you address Dr. Buffington has sort of a three-part, assumption might not be the right word, but he calls them facts, Fact A, Fact B, Fact C, and then he draws a conclusion.

Can you explain your criticism of that opinion from Dr. Buffington, please.

A. Yes. He says based on the Fact A, a ceiling effect has never been demonstrated in humans. That's false. Liu study, Bulach study, other studies have shown that. And that's cited in my original report. The authors themselves in the Miyake study say greater doses of midazolam did not produce greater effect. I mean, it's known. And that was a human study, and so that's false. Just simply not true.

Midazolam's pharmacological effects are known to be dose related. Well, yes, that's true. You get more sedation with a greater dose, but not necessarily pertinent to the issue at hand.

Q. And why is it not pertinent?

A. Because we don't know anything about doses above the therapeutic range. And there is a ceiling effect.

Q. The ceiling effect creates that, too?

A. So obviously you get the ceiling effect.

Q. Okay. So the greater dose response, that has to do with levels below the ceiling effect; is that accurate?

A. That would be one way to state it, yeah, definitely. You know, 1 milligram over triazolam or Xanax versus 2 milligrams, you are going to get more sedation, and so, yeah. But once you get a certain point, you are not going to get any greater effect because you need GABA present to work. GABA's limited.

And then, C, midazolam is highly lipophilic, it is more likely than not that doses of 500 milligrams or greater would render BIS values progressively lower than 69.

Q. First can you explain lipophilic?

A. Lipophilic, yes. That means fat loving.

THE COURT: That would be me.

THE WITNESS: That would be all of us, Your Honor.

BY MS. BARNHART:

Q. So that's L-I-P-O-P-H-I-L-I-C?

A. Right.

Q. All right. And what does that mean?

A. That just means that it crosses the blood-brain barrier quickly. If you think of the body, basically we are a bag of a lot of membranes, and so drugs that can cross membranes, which are lipid, hold our water inside, lipophilic drugs can cross it quicker.

Q. And yesterday somebody was talking about it's got to be free. I think it was Dr. Antognini. The midazolam has to be free in the blood as opposed to bind up with the protein?

A. This is the separation we see.
Q. Okay.
A. This has more just to do with the drug characteristic itself, the chemistry of the drug.
Q. Okay.
A. So the point that it is lipophilic has nothing to do with the incorrect statement that it could progressively lower it to 69. I mean, that's -- they're kind of separate, separate deals there. It's the drug action not being able to get past a certain amount of effect that --
Q. The drug action can't get past a certain amount because?
A. Of the ceiling effect and not being able to get beyond a BIS of 69. So I don't know why just because it's lipophilic it would change. I mean, we've been shown midazolam studies, and that midazolam was as lipophilic as any other midazolam, and they didn't get less than 69, so --
Q. Whether it's lipophilic or not, once it gets into the brain to the receptors, it still depends on the amount of GABA that's there?
A. Correct, 'Cause it always has to have GABA to work, and not work by itself.
Q. All right. And so after addressing those three parts, what's your opinion about the conclusion that he draws from those three, what he calls, facts?

A. Well, I just think it's false. It's contrary to any of the clinical studies we have. And we don't have a lot, but we've got enough to at least say midazolam has shown clinically not to produce a level of general anesthesia. There is no indication of it.

Q. Okay. And was there anything else that you thought would be helpful to the Court from what you heard from Dr. Buffington or Dr. Antognini's testimony or his reports that we didn't cover?

A. I think we covered it all. I just think -- it's counterintuitive, I think, to a lot of people, including myself, to think, well, if we just give more drug, we can get a greater effect. But, indeed, in pharmacology that's not always true because receptors are limited. In this case the GABA's limited.

So we have to kind of think, maybe a little bit more scientifically. Just because we give more of something, we can't change the effect necessarily.

Q. I think in prior testimony -- and, again, I wasn't in the case then -- but the plaintiffs' expert Dr. Waisel talked about a glass of water, and he used the analogy that once the glass of water was full, putting more water on it doesn't make it any more wet because it's, like, saturated or it's reached its limit?

A. Right.

Q. Does that make sense to you?

A. That's a good analogy.

Q. And then at this time --

MS. BARNHART: Oh, that's all the questions I have.

THE COURT: Thank you. Cross.

CROSS-EXAMINATION

BY MR. MADDEN:

Q. You were in here when Dr. Buffington testified; is that right?

A. That's correct.

Q. And when he said the FDA prohibits experts from attempting to opine on the pharmacological effects based solely on animal and laboratory studies, is that accurate?

A. I'm not sure what he was talking about as far as -- I've never heard of an FDA prohibition of expert witnessing, and I don't think they have ever mentioned that on their -- I'm not aware of his source for that statement.

Q. Can -- does the FDA allow animal studies to be done -- test results from animal studies to then approve drugs for public use?

A. That's how they do it. There is a whole pre-clinical phase. There is no drug that we use that hasn't been tested on animals.

Q. But is there a -- human trials in between?

A. No, they come after the animal trials.

Q. Yes. But between going to the public and the animal trials, isn't there a phase when you do human trials as well?

A. There is three phases, phase one, phase two, phase three, of clinical trials after the drug has been submitted for a new drug application, an NDA.

Q. Has any of this been done with -- as it pertains to large doses that we're talking about, nontherapeutic doses but rather large dosages of midazolam?

A. No company that I am aware of has tried to get large doses of midazolam approved by the FDA.

Q. Now, your tests that you did with the in vivo, is that right? Or in vitro?

A. In vitro would be in glass, like vitreous glass.

Q. Okay. Thank you. And those tests were done as to a particular part of GABA, right? $GABA_A$?

A. A particular receptor.

Q. A particular receptor.

A. Correct.

Q. And there is $GABA_B$ and $GABA_C$; is that right?

A. $GABA_B$ I know of. It's a different type of receptor. $GABA_C$ I am not as familiar of. It might be more of a newly discovered one; they are still kind of figuring it out. But I'm not -- it's not one that we have any drugs targeted to,

$GABA_C$, so it might be more of a still-learning-about-it stage.

Q. So these tests were exclusive to that receptor on $GABA_A$; is that right?

A. The tests that we're looking at, the benzodiazepine effects, were exclusive to the GABA receptor that benzodiazepines bind to. The benzodiazepines don't work at the other types of GABA receptors.

Q. What about underneath, is there -- on the other side of $GABA_A$? Is there other receptors on $GABA_A$?

A. Well, there is different -- it's not like there is other receptors. The $GABA_A$ receptor is kind of a unitary thing. And on that receptor there is different binding sites.

Q. Yes.

A. Where GABA binds to, benzodiazepines bind to, barbiturates bind to, alcohol binds to.

Q. And those receptors have not been tested, right?

A. No, those are the $GABA_A$ receptors that were tested that contain those sites.

Q. So benzodiazepines don't attach to any other receptors besides the one that's been tested on $GABA_A$?

A. That's correct. The best of my knowledge.

Q. But you are sure of this?

A. Yeah, that's the main target. I mean, every textbook

talks about $GABA_A$ as being the main target of benzodiazepines, correct. All the research.

Q. And, you know, yesterday I asked you about an article about the reuptake of GABA; is that right?

A. You did.

Q. And would you agree with me that there are pharmacologists out there who do believe that midazolam causes a reuptake in GABA?

A. I haven't researched that, I am taking your word that there are articles like that. It's not by any means mainstream as far as it really hasn't made it into too many textbooks.

Q. Did you look at that rat study we talked about, the one that you signed on that I proposed quoted a reuptake in GABA? Did you --

A. I didn't have access to that paper unfortunately.

Q. Okay, so -- okay.

A. Yeah.

Q. Now, you would agree with me that a petri dish with nonhuman --

THE COURT: Tissue.

BY MR. MADDEN:

Q. -- tissue cannot replicate what's in the human brain, can it?

A. Correct. Now, they still have human receptors, so some

of that part is kind of replicated. But, yes, the cells could be frog oocytes or rat spinal cord neurons, and they are not human cells traditionally. You can use human cells. It's just that those studies didn't.

Q. Now, you said -- when going back to the reuptake in GABA, you said that you didn't -- you did not agree with me. Are there other pharmacologists who believe that midazolam causes a reuptake in GABA?

A. Again, I'm trusting that you found some papers on that, that they were valid, peer-reviewed papers, and I have not researched the re -- possible GABA reuptake. So I did my research. That did not -- wasn't a common kind of mechanism of action of benzodiazepines.

It may be out there. There may be some researchers that are looking at that aspect of it, but by no means is it a mainstream -- you know, if the medical students take a board exam, "What's the mechanism of action of benzodiazepines?" they are going to say, "Bind to the $GABA_A$ receptor in the presence of GABA to produce the effect."

Q. So let's move on to the -- to another topic. Let's go to the part of your -- where you cite that you spoke about, about general anesthesia. I think it's page 9 or 7 of your report.

THE COURT: First report or rebuttal report, sir?

MR. MADDEN: First report. Excuse me, Judge.

BY MR. MADDEN:

Q. It's 9, sir. I apologize.

A. Page?

Q. Page 9.

A. 9 of 32 or whatever, okay. Okay.

Q. Okay. You agree with me that this table is exclusive to therapeutic dosages? They are not talking about midazolam in massive dosages?

A. I would assume that, yeah. I mean, they don't say exactly what you said, but it was done by the American Society of Anesthesiologists, and would I assume that they were thinking mostly for clinical use obviously. So, I mean, it wasn't explicitly stated like you said, but, yes, I think mostly they were talking about therapeutic use of drugs.

Q. And there is no indication here that they are talking about 500 milligrams of midazolam; is there?

A. No. That's correct.

Q. Now, there is no dispute that midazolam, when used with hydromorphone, causes anesthesia, is that -- can lead to anesthesia; is that right?

A. Well, I wouldn't necessarily say that. I don't -- again, I haven't seen studies that they looked at that. They either looked at BIS or did some study so --

Q. Your expertise, you testified the other day that you,

your -- your main focus is opioids, is it not?
A. That's correct, which are analgesics.
Q. Which are analgesics. And an opioid with -- and opioids are often used with benzodiazepines; is that right?
A. Yes, to my knowledge.
Q. For their synergistic effect?
A. That's correct.
Q. And you would say that when someone tries to compare that, the combination of those two drugs, with a large dose of midazolam, they are -- they are apples to oranges, right?
A. Right. The two-drug combination versus one, for example?
Q. Yeah. Those are totally unrelated. They are not similar?
A. Well, they are -- they might be on the same -- they might produce the same effect, but the two drugs are going to produce a greater effect than the one drug. So it depends kind of what you are talking about.

THE COURT: And when you say one drug, you mean either one of them used alone, right?

THE WITNESS: Correct, sir.

THE COURT: Thank you.

BY MR. MADDEN:
Q. There's been a lot of testimony here that midazolam is used alone for intubation, have you not?

A. I have heard that, yes.

Q. And you are not disputing that?

A. I am only -- I am not an anesthesiologist, so I don't know the common practice of using midazolam for intubation.

Q. You would agree with me that even though you are not an expert on pain or noxious stimuli, you would agree with me that intubation, if done without any kind of drug, would be painful?

A. If I tried just to imagine myself --

Q. Yes.

A. Not as obviously any expert. As a lay person, it sounds like it would be irritating. I don't know how painful it would be, like incisional pain, but it seems like it might be irritating, putting a pipe down your windpipe or whatever.

THE COURT: You don't dispute the testimony that we have heard here that it is -- whether painful or not, that it is very noxious?

THE WITNESS: Yes, I think it would definitely cause a reaction, yeah. Exactly.

BY MR. MADDEN:

Q. And you agree, you said -- you brought up the term "anti-analgesic," did you not?

A. Hyperalgesia, I might have said, about midazolam having a hyperalgesic effect?

Q. Yeah, yes. Okay. You didn't say anti-analgesic?

THE COURT: No, he didn't. I don't believe so.

MR. MADDEN: Maybe I misheard. I apologize.

BY MR. MADDEN:

Q. Now, you said that you cannot overdose on midazolam. Is that your testimony?

A. Well, overdose is possible. That would bring you perhaps into the toxic range, yes.

Q. So you would agree with me that there have been cases at therapeutic doses where midazolam has led to death?

A. I have not studied that. And what I have read is that, like in the midazolam general textbook or stuff is that overdose death -- so, again, we have to differentiate. When you say overdose, that does not mean overdose death. Overdose could send you to the ER; you could still live. So I just want to make that clear if you are talking about overdose death or overdose, per se.

Q. And you would agree with me that there is a black box warning on midazolam, not midazolam and another drug, but there is a black box warning on midazolam saying that this drug is dangerous; is that accurate?

A. It doesn't say the drug is dangerous. It says you have to be careful and watch out for these things basically.

Q. Are you saying that --

MR. MADDEN: I want to show the witness what is

Plaintiffs' Exhibit 3, Bates 888 to 890. May I approach?

THE COURT: Yes, sir.

BY MR. MADDEN:

Q. If you could read this silently as I read aloud -- well, first of all, what does this appear to be?

A. This looks like the prescription label information from midazolam injection formulation from Akorn Laboratories.

Q. Is this the black box that we have been referring to?

A. Yeah. I haven't really seen it in this format. Usually it's a bigger page and not three columns. But -- just wondering what the date of this one is.

Q. See the part that says "warning"?

A. Correct.

Q. Please read silently as --

MS. BARNHART: What was the page, the Bates page for this?

MR. MADDEN: 888-890.

MS. BARNHART: 888.

MR. MADDEN: To 890.

MS. LOWE: It's Tab 3 in your expert exhibit binder.

MS. BARNHART: Are you saying the ECF number?

MS. LOWE: No, it was the Bates stamp.

MS. BARNHART: Okay.

BY MR. MADDEN:

Q. Please read silently as I read it aloud. "Adult and pediatric. Intravenous midazolam has been associated with respiratory depression and respiratory arrest, especially when used for sedation in non-critical care settings. In some cases, where this was not recognized promptly and treated effectively, death and hypoxic encephalopathy --"

A. Encephalopathy.

Q. I will take your word for it "-- has resulted."

Did I read that accurately?

A. You did.

THE COURT: Hypoxic, H-Y-P-O-X-I-C, encephalitis?

THE WITNESS: Encephalopathy.

THE COURT: Encephalopathy. Thank you.

BY MR. MADDEN:

Q. Did I read that accurately?

A. You did.

MR. MADDEN: Your Honor, I have no further questions.

THE COURT: Thank you.

Redirect?

MR. BOHNERT: Your Honor, if I might be able to do the questioning.

REDIRECT EXAMINATION

BY MR. BOHNERT:

Q. Doctor, the document that Mr. Madden just had you read,

is that the black box warning that -- that would go with midazolam?

A. I believe it was.

Q. Okay. Assuming -- there was some discussion about the reuptake in GABA that was discussed here. Assuming for a moment that reuptake occurs, is that relevant to understanding the use of midazolam in Ohio's three-drug execution protocol?

A. No.

Q. Now, there was also some discussion as a mention of a new drug application a minute ago. What is that?

A. New drug application occurs when a pharmaceutical company has done enough research, pre-clinical research to file a new drug application, NDA, to the FDA, to get approval to begin clinical trials. So they do animal research, mild chemical research, in-vitro research for anywhere from five to ten to twelve years, and then file an NDA, new drug application. And then that allows them, if the FDA approves it, to go ahead and start clinical trials.

Q. So if there is a drug -- at the end of the approval process, you end up with the FDA approved uses of a drug; is that right?

A. That's correct.

Q. And if I want to use a drug for something that is not listed in the FDA-approved uses of that drug, can I do that?

MR. MADDEN: Objection. Goes beyond the scope.

THE COURT: Sustained.

MR. BOHNERT: No further questions, Your Honor.

THE COURT: Thank you.

You may step down, Dr. Stevens.

THE WITNESS: Thank you very much, Your Honor.

THE COURT: What's next?

MS. WOOD: We still have those exhibits from yesterday's presentation.

THE COURT: Right, sure.

MS. WOOD: They have not been reviewed. And I believe there is a matter of scheduling for Monday.

THE COURT: Dr. Stevens, before you leave the courtroom, I want to subject you to my favorite *New Yorker* cartoon from last year. It occurred to me when Mr. Madden was talking about comparing apples and oranges.

Eve is standing in front of Adam. She's holding out the apple, and she says to him, "Will you please just try it before you start comparing it to oranges?"

Have a pleasant weekend, sir.

THE WITNESS: You, too. Thank you.

THE COURT: All right. Exhibits from yesterday.

MS. WOOD: Yes.

THE COURT: All right. What do you have for me?

MS. WOOD: I marked them as plaintiffs' experts

exhibits in order as the first exhibit, and then the supporting documents and studies that were included as particular exhibits. And I just wanted to make sure I have done it correctly and to Your Honor's specifications. I did include first ten pages of the manual, which one page was displayed to show what it is.

THE COURT: Right. For context, right. May I see?

MS. WOOD: Yes.

MR. MADDEN: No, I do now. Thank you.

I am not sure all of these were referred to, were they?

MS. WOOD: I should clarify that. The last two exhibits are from my presentation that we would like to show during Dr. Bergese's rebuttal, which hopefully will be on Monday.

THE COURT: All right.

MS. WOOD: So I preemptively marked those.

THE COURT: And those would be 12 and 13?

MS. WOOD: They are 18 and 19, the very last two pages.

THE COURT: Okay.

MS. WOOD: They are pictures of BIS monitors.

THE COURT: I see. And you are representing to the Court that what we have here in 9 through 17 are the cross-examination documents you presented to witnesses -- a

witness yesterday; is that correct?

MS. WOOD: Yes, Your Honor.

THE COURT: Thank you, ma'am.

Is everybody ready to go home for the weekend?

RESPONSE: Yes, Your Honor.

THE COURT: I don't have any more *New Yorker* cartoons to relay either, so we're in recess.

THE COURTROOM DEPUTY: All rise. This court stands in recess.

(Proceedings concluded at 4:50 p.m.)

CERTIFICATE OF REPORTER

I, Mary A. Schweinhagen, Federal Official Realtime Court Reporter, in and for the United States District Court for the Southern District of Ohio, do hereby certify that pursuant to Section 753, Title 28, United States Code that the foregoing is a true and correct transcript of the stenographically reported proceedings held in the above-entitled matter and that the transcript page format is in conformance with the regulations of the Judicial Conference of the United States.

s/Mary A. Schweinhagen

_____ January 12, 2017

MARY A. SCHWEINHAGEN, RDR, CRR
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